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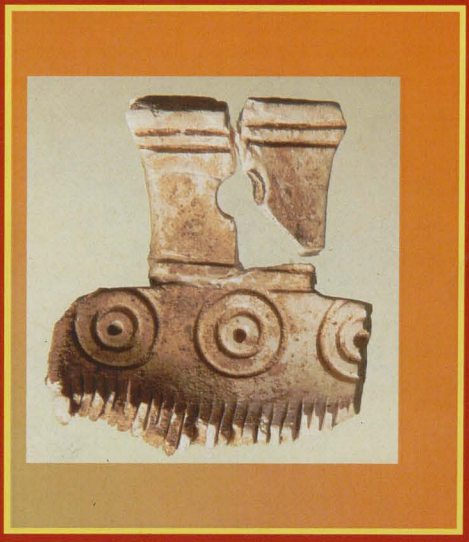

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Photo on the cover: bronze bracelet from grave 210 from Stelnica – *Grădiştea Mare* cemetery (Ialomiţa Co., Romania)

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ANTHROPOLOGICAL DATA REGARDING THE SKELETONS IN THE COLLECTIVE BURIAL FROM COPĂCENI (CLUJ COUNTY), OF THE EARLY BRONZE AGE (COPĂCENI GROUP)

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Key-words: collective burial, unusual ritual, Early Bronze Age.

Abstract: The present paper refers to the anthropological study of a collective burial that comprised the skeleton of a woman in a gynaecological position and of four little children. The woman had the age of 25-26 years. Two of the children were sucklings, with the age of 0-6 months (one of them of male sex), the third one, a *foetus*, had 36-38 gestational weeks (8-9 months) being considered as a prematurely born, or even an aborted child. The last child (the fourth one) had the male sex and the age of 0-1 month. Together with the first individual it was also found a tibia belonging to another individual of 0-6 months. The dimensions of the respective bone had shown that it didn't belong to any of the studied children.

Cuvinte-cheie: mormânt colectiv, ritual neobişnuit, Bronz Timpuriu.

Rezumat: Lucrarea de faţă se referă la studiul antropologic al unui mormânt colectiv, care cuprindea scheletul unei femei aflate în poziţie ginecologică şi a patru copii foarte mici. Femeia avea vârsta de 25-26 ani. Doi dintre copii erau sugari, cu vârsta de 0-6 luni (unul fiind de sex masculin), al treilea, un *foetus* de 36-38 săptămâni gestaţionale (8-9 luni) fiind considerat fie născut prematur, fie avortat. Ultimul copil (al patrulea) avea sexul masculin şi vârsta de 0-1 lună. Împreună cu oasele primului copil s-a găsit şi o tibie, aparţinând unui copil de 0-6 luni. Dimensiunile acestui os indicau faptul că el nu aparţinea niciunuia dintre copiii studiaţi.

I. Introduction

In 1990, in the Copăceni village (Cluj County), on the „*La Moară*" spot (Fig. 1), the archaeologist Gheorghe Lazarovici identified the presence of a platform which was assigned to the Early Bronze Age[1]. About 40 cm east from it, several human bones were found during the sectioning of an earthen wall, which was performed for making a road. In 1991, excavations had been undertaken on that spot, thus, two cassettes (C. I and C. II) being created[2]. In the first of them it was discovered a collective burial, containing the skeleton of a woman, as well as others, of three sucklings and a *foetus* (Fig. 2-3)[3]. The adult skeleton had a N-S orientation and was incomplete, missing its skull and partly the right arm and the left leg[4]. Upon its coxal bones were deliberately placed three limestone boulders. The skeleton had been arranged in a gynaecological position, with spread legs and heels underneath the pelvis and with the children skeletons around it. The possible interpretations of this situation, as provided by Mihai Rotea and Mihai Wittenberger, the archaeolo-

[1] Rotea, Wittenberger 1998, 17.

[2] *Ibidem,* 17-18, pl. II.

[3] At the beginning of the anthropological study, the initial number of skeletons had been considered to be much bigger, due to the fact that the human bones had been separately packed and noted by different persons, in various ways, thus bearing distinct notations, some of the packages with Copăceni-*La Rusu* (*Roşu*?), others with Tureni-*La Moară*. The number of packages was larger than that of the individuals mentioned by the archaeologists. In order to prepare this paper for publication, the authors of the archaeological study had provided me further information about the exact location of the find, as well as those about the initial marks which had been used, thus being clarified all the aspects about the skeletons notation.

[4] As we will see further, during the anthropological study, some other missing bones of this skeleton could be observed.

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Fig. 1 – Copăceni-*La Moară*. The position of the site.

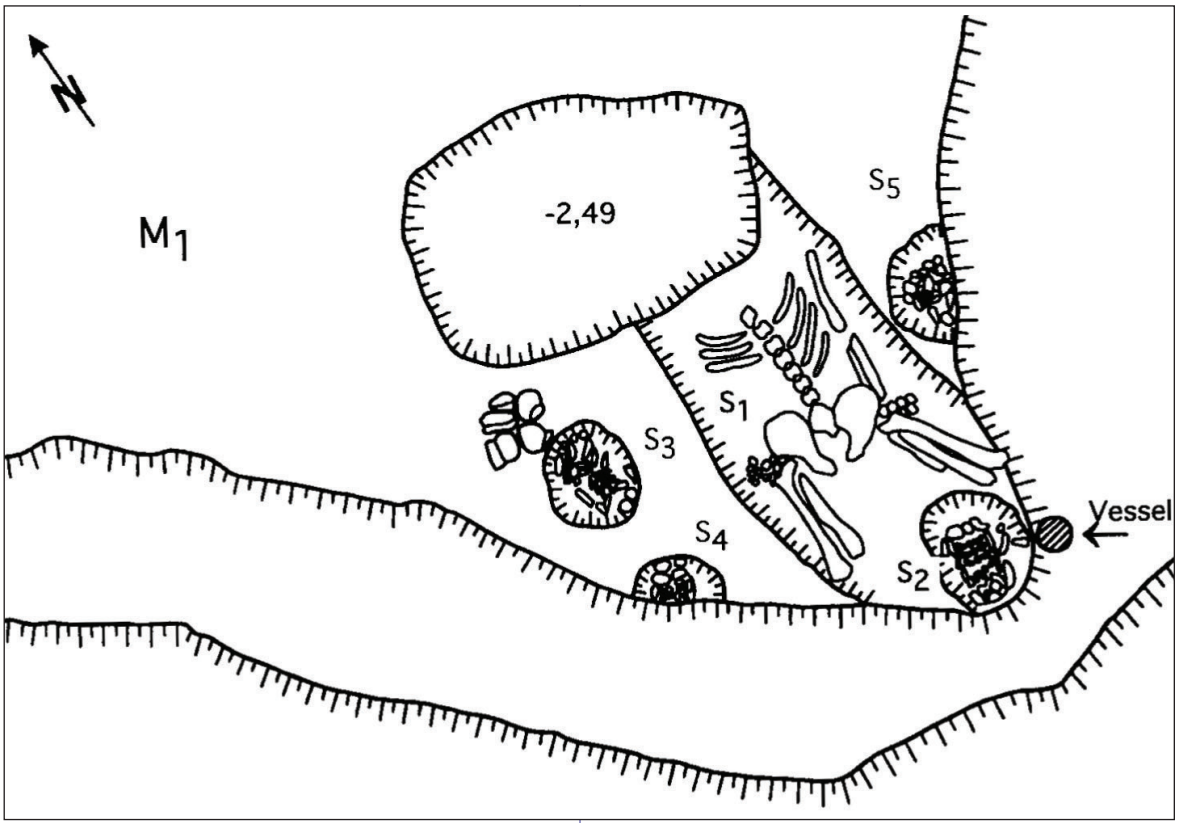

Fig. 2 – Copăceni-*La Moară*. The ritual complex.

gists who had carried out the excavations, were the following ones:

- A gestational accident, resulting in the abortion of the children;
- Practicing of a religious sacrifice;
- Natural death.

They considered the second hypothesis as being the most plausible, given the location of a dwelling in the proximity of the complex, thus the respective burial being possibly explained as a foundation rite.

Concerning the grave goods, it was found just a single vessel, with large dimensions. It bore

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traces of burnt cellulose type materials and was situated in the eastern extremity of the complex. The entire assembly had been partly deteriorated before the intervention of the archaeologists, so that the vessel was broken, while the woman and children skeletons had missing parts[5]. The complex has been assigned to the Early Bronze Age Copăceni Group[6].

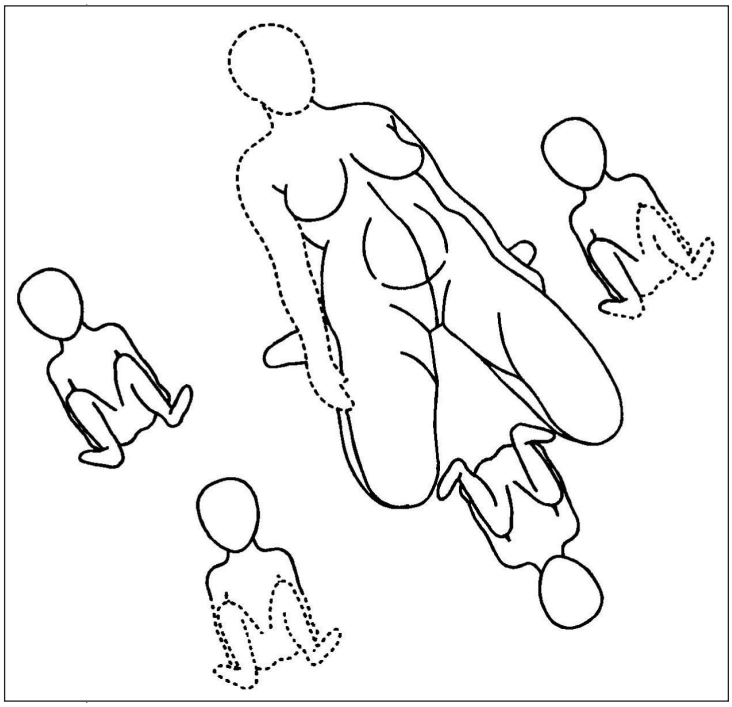

Fig. 3 – Copăceni-*La Moară*. Hypothetical representation of the complex (after Rotea, Wittenberger 1998).

II. Preservation condition of the skeletons

The woman skeleton was in a better state, due to the larger dimensions of its bones and given that the taphonomic factors didn't intervene too much upon it. On the other hand, the children skeletons were poorly preserved, especially when we refer to the bones of the skulls. These were very brittle and thin and this was maybe the reason why they were found in a very fragmentary condition. Some parts of those skulls were reconstructed, but they were not too helpful for the anthropological study. Yet, we were lucky enough to have some significant elements which helped us during the study, for having more relevant conclusions. The long bones of the children were in a better condition and this is why some of them could be reconstructed and allowed the specific measurements to be carried out upon them.

III. Anthropological analysis

1. *Material and methods*

1.1. *Materials*

The materials to be studied here are represented by the woman and children skeletons.

1.2. *Methods*

For each individual the anthropological study was based upon the methods and techniques recommended after the working sessions of the anthropologists in Prague (1972) and Sarospáták (1978)[7].

1.3. *Age estimation*

Of course, we have used distinct criteria, given the obvious differences between the adult individual and the children skeletons.

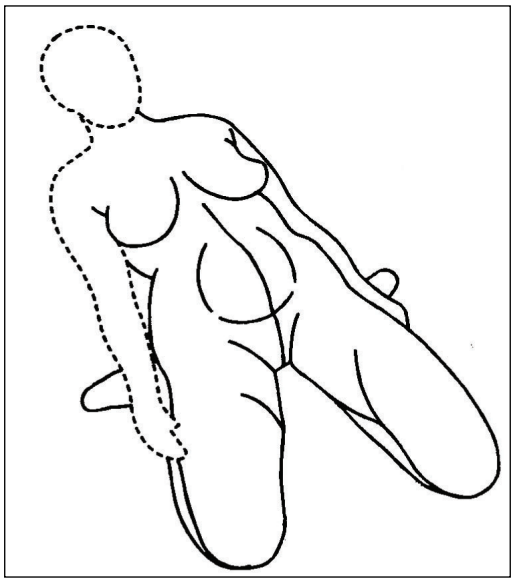

Fig. 4 – Copăceni-*La Moară*. Subject 1: the position of the female skeleton.

1.3.1. *Adult*

For this individual we have used the following criteria:

- changes of the symphiseal facies of the pubis;
- the closure of the sacral vertebrae;
- occurence and evolution of some pathological processes, more or less connected with the age, or with the activity of the individual[8].

[5] An interesting paper that also included the find from Copăceni was published by Palincaş 2014.

[6] Rotea, Wittenberger 1998, 19. About this group, see Rotea 2003, with lit.

[7] Ferembach *et alii* 1980, 517-549.

[8] Ortner, Putschar 1985; Brothwell 1981, 109-174; Hošovski, Mikić 1995.

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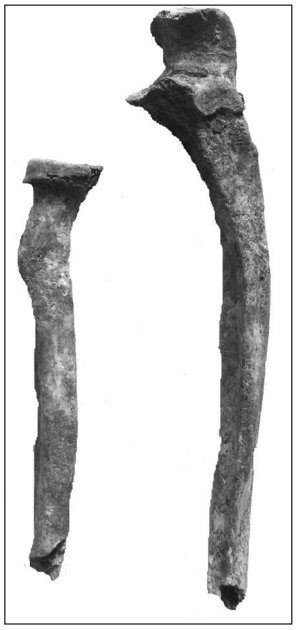

Fig. 5 – Copăceni-*La Moară*. Bones of the upper limbs of the Subject 1.

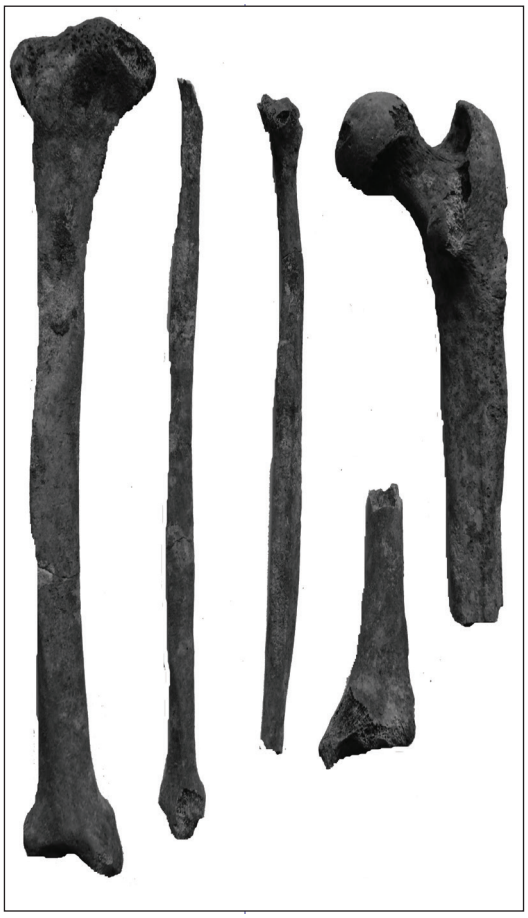

Fig. 6 – Copăceni-*La Moară*. Bones of the lower limbs of the Subject 1.

1.3.2. *Sucklings and foetus*

For establishing the age of those children it was used the dental scheme of development and eruption of the decidouos teeth conceived by Ubelaker[9], as well as the tables regarding the correlation existing betweent the length of the long bones and the age of the inividuals up to 14 years conceived by Stloukal şi Hanáková[10]. Moreover, it was also used the method of age determination based on the measurements of the *pars basilaris*[11].

1.4. *Estimating the sex*

In the mentioned purpose, for the adult individual, the same like for the age assessment, a complex of characters have been used, which we could identify and will be rendered in the following lines:

- the general shape of the coxal bones, with the changes specific to each sex;
- the degree of opening of the great sciatic notch;
- the massiveness degree of the long bones and especially the dimensions of the epiphyses and development of the muscle marks.

The anthropometric study for the woman skeleton has been done according to the classical techniques established by R. Martin and improved by de K. Saller[12]. For the evaluation of the dimensions has been used the dimorphic scale of V. P. Alexeev and G. F. Debetz[13], while for the indices, the unitary classical ones, as used in the current practice.

In the present paper, we didn't use the method for establishing the number of births as provided by some transformations appeared on the coxal bones and especially on the pelvis. This decision was taken as such determinations are very controversial. The elements used in this purpose are situated in the region of the sacro-iliac suture (*pre-auricular sulcus*) and in the proximity of the pubic symphysis (on the postero-superior part of the pubis). To these, the pubic tubecle could be also added. By the studies carried out upon recent cases, with well known parity, it resulted a small correlation between the number of births and the mentioned formations. Indeed, they seldom appeared at the nulipar women, but could be also identified at the male individuals. At the same time, other multiparous women could exhibit no modifications appearing on the coxal bones.

Seemingly, these changes, that for some time have been interpreted as being the result of birthing, in fact, reflected the influence of some biomechanical factors, or of those from other categories[14].

Regarding the sucklings, in order to assess their sex we have relied upon the characteristics of the iliac bones, as established by Schutkovski[15].

1.5. *Stature estimation*

We have used three most usual methods, conceived by Manouvrier, Trotter and Gleser and

[9] Ubelaker 1978, 46-47; Schumacher, Schmidt 1976, 102, 128.

[10] Ferembach *et alii.* 1980, 532.

[11] Scheuer, MacLauchlin-Black 1994, 177-180; Tocheri, Molto 2002, 356-363.

[12] Martin, Saller 1957-1966, 429-597; Ubelaker, 1978.

[13] Alexeev, Debetz 1964.

[14] Houghton 1975, 655-661; Holt 1995, 94; Snødgrass, Galloway 2003, 1-5; Chamberlain 2006, 96.

[15] Schutkovski 1993, 199-205.

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Bach[16]. Some decades ago, Olga Necrasov considered that it is better to use several methods to estimate the stature, in order to compensate the errors of each of them[17].

2. Anthropological data

2.1. *The adult skeleton – Subject 1* (Fig. 2, 3, 4)

2.1.1. *Skull*

The individual, as provided for the anthropological study, had no skull and part of the post-cranial skeleton, from the upper part of the body. As a general feature of the bones, we could notice their well outlined muscle marks.

2.1.2. *Post-cranial skeleton*

Out of the post-cranial skeleton, from the upper limbs, fragments of the left ulna with the missing distal end and a small part of the diaphysis, as well as the fragmentary left radius (Fig. 5) have been recovered. From the lower limbs, the upper half of the right femur, with its proximal end, the complete right tibia and part of the left one with its distal metaphysis, both fibulae (the right one without the distal end and the left without the proximal one) (Fig. 6) had been found. Both coxal bones existed as well, broken at places (Fig. 7).

There were also ribs, vertebrae, the left patella, calcanei, taluses, metatarsal bones, phalanges. The first sacral vertebra was also recovered and it was unfused with the second one.

Dimensions of the right tibia, the only bone that was entirely preserved will be present below (Table 1).

2.1.3. *Sex and age diagnosis*

After analysing the characteristics of the mentioned individual, it was concluded that the respective skeleton had belonged to the female sex. Based upon the facies of the pubic symphysis, which belonged to the stage IV by Todd, it resulted that the age of the studied woman was of 25-26 years. Another element that shows the age of the individual is the unfused first vertebra of the sacral bone.

2.1.4. *Non-metric traits*

On the right tibia there are obviously outlined the "squatting facets", especially the lateral one. On the left bone, the surface of that area is damaged and, therefore, the respective traits could not be detect-

Fig. 7 – Coxal bones, Subject 1.

ed.

Fig. 8 – *Hiatus sacralis,* Subject 1.

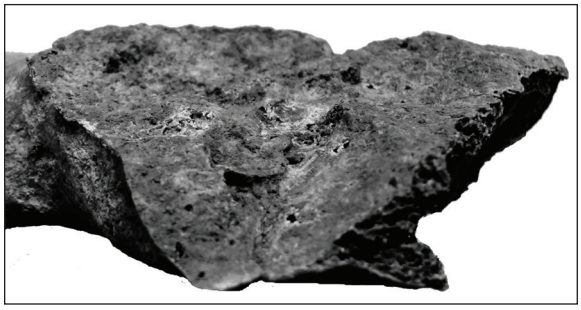

Fig. 9 – Copăceni-*La Moară.* Bony crest of the coxal bones, Subject 1.

For the sacral bone it could be observed the presence of the *hiatus sacralis* belonging to the 2nd category by Franz-Markus (Fig. 8)[18].

2.1.5. *Skeletal markers of individual activity*

The ulna, femur and fibulae had emphasized stronger muscle insertions. On the ulna, the *linea interosea* is well developed. Also, the marks of the *triceps* are structured in an osseous crest, those of the *supinator* and *anconeus* are also well emphasized, the same like those of the *brachialis* and

[16] H. Bach, 1965, 20, 12-21; Manouvrier 1893, 4, 433-449; Trotter, Gleser 1952, 10, 463-514.

[17] Necrasov 1982, 241-245.

[18] The scheme of U. Franz-Markus regarding the *hiatus sacralis* is to be found in Grimm 1961, 349, fig. 1.

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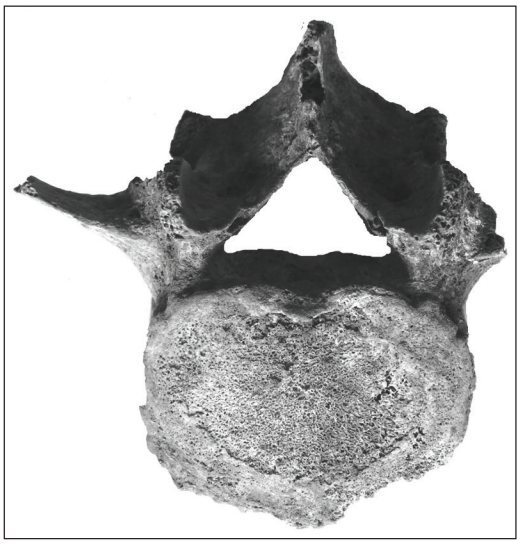

Fig. 10 – Copăceni-*La Moară.* Osteoarthritys on a dorsal vertebral body, Subject 1.

Fig. 11 – Copăceni-*La Moară.* Schmorl node on a lumbar vertebra, Subject 1.

Fig. 12 – Copăceni-*La Moară.* Tibial metaphysis with porosities, Subject 1.

flexor digitorum profundus muscles.

On the radius, the *linea interosea* is also well defined, as well as the *biceps*, *adductor policis longus* and *flexor policis longus* insertions. All these data show us that the respective individual had intensely used his upper limbs. On the coxal bones, especially around the *facies auricularis*, a bony crest could be observed (Fig. 9).

On the femur there are well outlined the marks of the *gluteus maximus,* while on the fibulae all the muscle marks are very evident.

2.1.6. *Pathological aspects*

Upon the dorsal vertebrae, especially on L. 5, there were exostoses of smaller, or medium size (Fig. 10). On a lumbar vertebra, the presence of a Schmorl node could be observed (Fig. 11).

On the proximal end of the right tibia (Fig. 12) there are porosities that indicate the presence of an inflammatory process. The same observation could be done upon the femoral head and its neighbouring area (Fig. 13).

2.1.7. *Stature*

The height of the individual, established by using the right tibia had reached 1,536 cm by Manouvrier, 1,580 cm by Trotter and Gleser and 1540 cm by Bach. The most probable height of the individual was of 1,552 cm, belonging to the medium category, for the sex that we are referring to, based upon the dimorphic scale of Alexeev and Debetz.

2.1.8. *Typology*

Considering the stature of the individual, as well as the robustness of the long bones and the gracility of the other parts of the skeleton, we have assigned this individual to the Protomediterranean type.

2.1.9. *Other depositions*

Together with the human individuals there were two animal bones and a vessel of large dimensions.

2.2. ***Children***

2.2.1. *Subject 2* (Fig. 2, 3, 14)

This skeleton was almost complete. It was placed right between the legs of the adult individual, in a flexed position, on its back, with the legs raised towards its chest. The orientation of this skeleton was almost the same like that of the adult, namely SW-NE, but its head was towards SE[19].

[19] Rotea, Wittenberger 1998, 18.

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2.2.1.1. *Skull* (Fig. 15)

From this part of the skeleton frontal fragments (two of them with the upper margins of the orbits), parietals, the petrous portion of the temporal bones, malars, fragments of the cranial base, as well as some smaller parts of the occipital could be recovered. One fragment of the mandible has been also found, coming from the right horizontal ramus (Fig. 16), as well as the bud of a central deciduous incisor. Separately, it was found a fragment of the right ascending ramus, but that zone of the mandible could not be reconstructed, due to missing connective portions.

2.2.1.2. *Post-cranial skeleton*

From this part of the body, neural arches, 13 rib fragments, epiphyseal disks, phalanges, the right scapula in a fragmentary condition, the right ischion, ilion (Fig. 17) and pubis, as well as metatarsal bones could be recovered. From the long bones, just the right humerus, the right radius and the right tibia could be reconstructed (Fig. 18, 19). Their dimensions are rendered below (Table 2).

2.2.1.3. *Sex and age diagnosis*

Based upon the method established by H. Schutkovski, we could consider that the skeleton had belonged to the male sex. Considering the dimensions of its right humerus and tibia, we can estimate its age at 0-6 months, most probably, towards the end of the interval.

2.2.1.4. *Other depositions*

Together with the *Subject 2* it was found a right tibia (60 mm) (Fig. 20), coming from an individual with the age of 0-6 months.

2.2.2. *Subject 3* (Fig. 1, 2, 21)

This individual was placed about 40 cm on the right (western) side of the adult skeleton, in a flexed position, on its back, with its legs raised towards its chest. The orientation of the skeleton was NW-SE, almost the same like that of the adult, but with a slight deviation to the west. In the proximity of the skull, six river stones had been placed[20].

2.2.2.1. *Skull* (Fig. 22)

This part of the skeleton was discovered in an excessive fragmentary state, with brittle bones. Some small portions of the frontal (with the upper part of the orbits), parietal, petrous portions of the temporal bones and occipital have been reconstructed, with great difficulty. There were also parts of the cranial base, as well as part of the mandible (just the left horizontal ramus, without traces of fu-

[20] *Ibidem.*

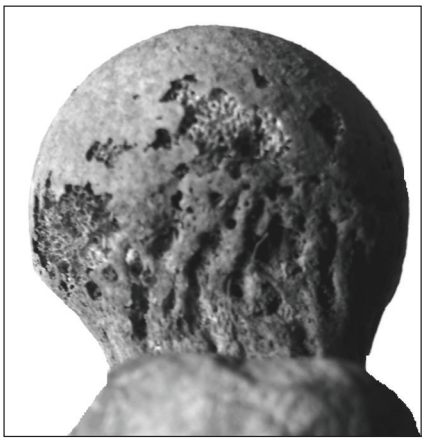

Fig. 13 – Copăceni-*La Moară.* Femural head with porosities, Subject 1.

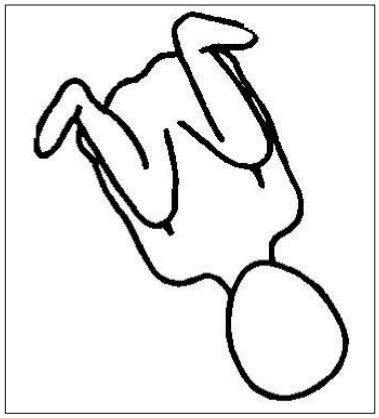

Fig. 14 – Copăceni-*La Moară. Subject 2*: the position of the skeleton (after Rotea, Wittenberger 1998).

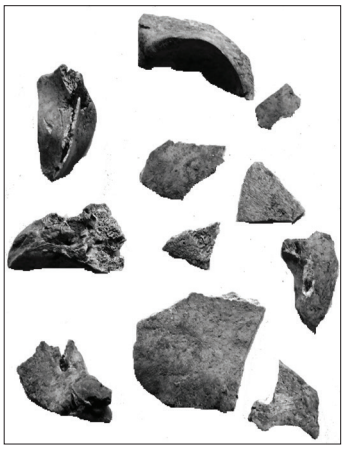

Fig. 15 – Copăceni-*La Moară. Skull fragments,* Subject 2.

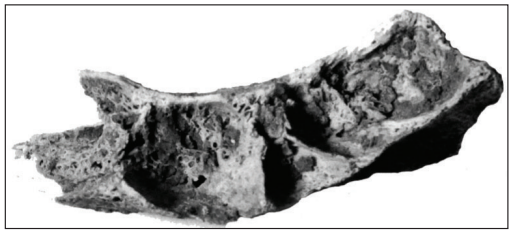

Fig. 16 – Copăceni-*La Moară*. Mandible fragment, Subject 2.

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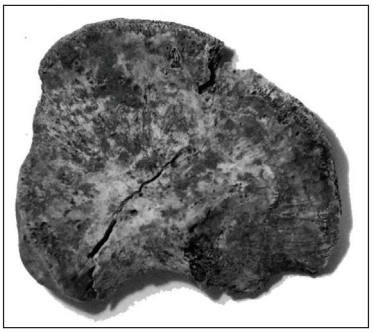

Fig. 17 – Copăceni-*La Moară*. Right iliac bone, Subject 2.

Fig. 18 – Copăceni-*La Moară*. Long bones of the upper limbs, Subject 2.

Fig. 19 – Copăceni-*La Moară*. Long bones of the lower limbs, Subject 2.

sion with the right one) (Fig. 23). As buds, the following teeth have been found: 2 m.1, 2 m.2, 2 upper central incisors.

As the complete *pars basilaris* has been also recovered (Fig. 24), the measurements on this bone could be performed without difficulty (Table 3).

2.2.2.2. *Post-Cranial skeleton*

The long bones were represented by the right ulna, which was complete. The left ulna has been recon-

Fig. 20 – Copăceni-*La Moară*. Isolated tibia found with Subject 2.

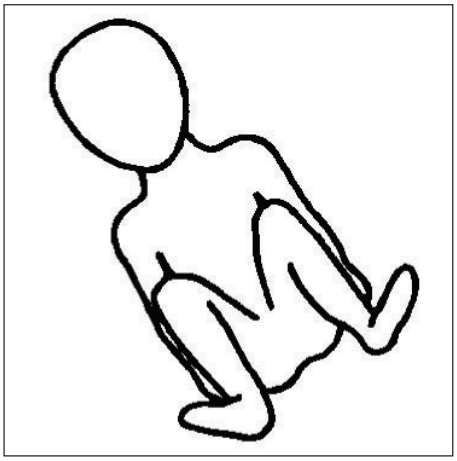

Fig. 21 – Copăceni-*La Moară*. Subject 3: position of the skeleton (after Rotea, Wittenberger 1998).

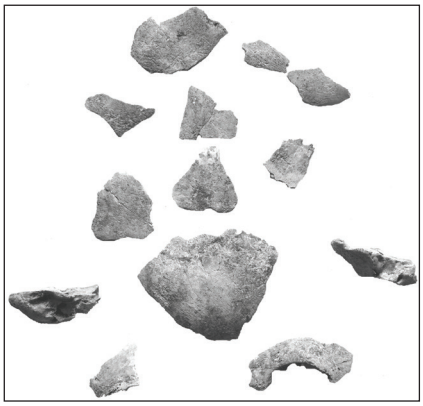

Fig. 22 – Copăceni-*La Moară. Skull fragments,* Subject 3.

structed, as well as the right humerus and radius.

From the mentioned individual, other bones were also recovered, such as: scapulae, clavicles (of which the right one had the broken ends and the left one the missing distal end), neural arches, 14 rib fragments, a pubic fragment, 1 metatarsal bone.

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On the long bones (Fig. 25), the measurements could be performed and they are rendered in the table below (Table 4).

2.2.2.3. *Sex and age diagnosis*

Based upon the measurements undertaken upon the long bones, it resulted that the individual had the age below 6 months, but using those on *pars basilaris* it could be found that its age was of 0-6 months, but a little bit younger than the previous skeleton.

2.2.3. *Subject 4* (Fig. 1, 2, 26)

This individual was found 0.34 cm west from the adult skeleton, in the area of its lower limbs. It was just partly preserved (part of the skull and chest), the rest of the skeleton being destroyed by landslides[21].

2.2.3.1. *Skull*

There are fragments coming from both malar bones, with the lower outline of the orbits, as well as the *pars* basilaris (Fig. 27). The measurements of the last mentioned bone are rendered in the table below (Table 5).

2.2.3.2. *Post-cranial skeleton*

This part of the skeleton is represented by the right radius (Fig. 28), three rib fragments, the right scapula in a fragmentary condition, 1 neural arch, 1 metatarsal bone (Table. no 6).

2.2.3.3. *Sex and age diagnosis*

The sex of this individual could not be established, due to the lack of relevant elements.

Considering the measurements undertaken on *pars basilaris*, we could estimate that the respective individual had the age of 36-38 fetal weeks (8-9 gestational months)[22]. He could be either aborted, or prematurely born.

2.2.4. *Subject 5* (Fig. 1, 2, 29)

This was discovered 0.20 cm away from the left arm of the adult individual. It was just partly preserved, being destroyed by landslides. Seemingly, the orientation of this skeleton was north–south, but with a slight rotation to the west[23].

2.2.4.1. *Skull*

Few bony fragments have been recovered from this part of the skeleton (Fig. 30). There were portions of the parietal, the area of the zygomatic apophysis on the left side and both petrous por-

[21] *Ibidem.*

[22] Tocheri, Molto 360, Table 3.

[23] Rotea, Wittenberger 1998, 18.

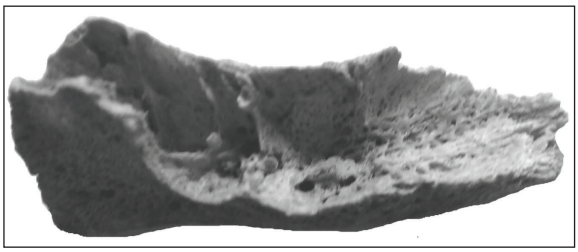

Fig. 23 – Copăceni-*La Moară. Mandible fragment,* Subject 3.

Fig. 24 – Copăceni-*La Moară. Pars basilaris,* Subject 3.

Fig. 25 – Copăceni-*La Moară. Long bones of the upper limbs,* Subject 3.

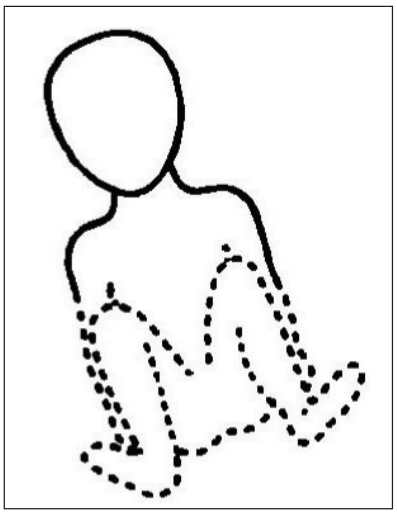

Fig. 26 – Copăceni-*La Moară. Subject 4: position of the skeleton (after Rotea, Wittenberger 1998).*

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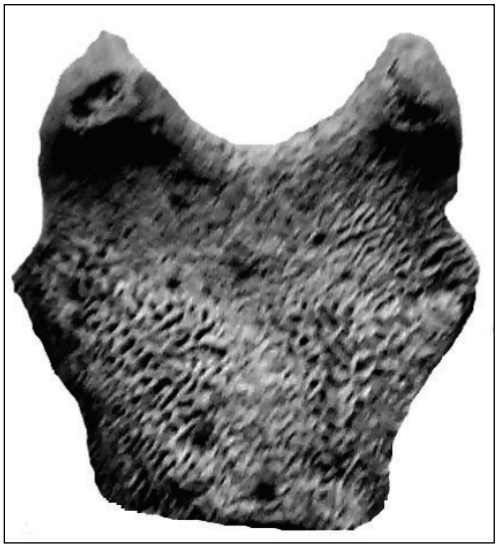

Fig. 27 – Copăceni-*La Moară*. *Pars basilaris,* Subject 4.

Fig. 28 – Copăceni-*La Moară*. Right radius.

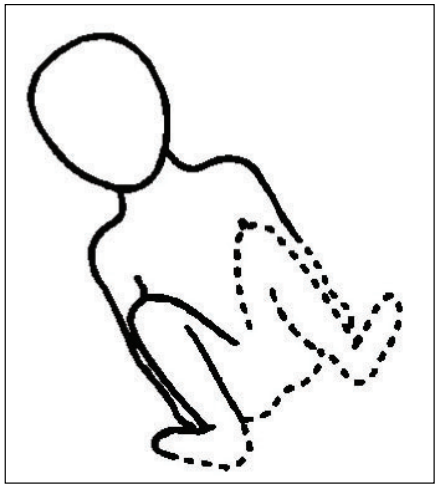

Fig. 29 – Copăceni-*La Moară*. *Subject 5*: position of the skeleton (after Rotea, Wittenberger 1998).

Fig. 30 – Copăceni-*La Moară*. Cranial fragments, Subject 5.

tions of the temporal bones, two fragments of the horizontal ramus of the mandible (Fig. 31), without traces of their fusion. There were also buds of the right central upper incisor and buds of decidous molars I.

2.2.4.2. *Post-cranial skeleton*

Rib fragments have been identified, as well as the right scapula (represented just by the area of the glenoid cavity), neural arches, epiphyseal disks (complete and fragmentary), phalanges. It was also found the right clavicle (Fig. 32)[24]. Both iliac bones, in an almost complete state have been also recovered (Fig. 33).

From the long bones, both humeri (the right one with the proximal end slightly deteriorated, at places, thus being not used for the measurements), both ulnae, the right radius (Fig. 34), the right femur, both tibiae, the right patella and a fragment from the left one (Fig. 35) have been recovered.

The measurements undertaken on the long bones of this individual are rendered below (Table 7).

2.2.4.3. *Sex and age diagnosis*

The sex of the individual, by using the method established by Schutkovski[25], was the male one. The age of the individual, using the long bones, the clavicle (39 mm)[26] and dentition (according to the dental scheme of Ubelaker[27]) was of 0-1 month.

IV. Some conclusions

We are facing a very interesting situation, of a collective burial, which comprised very young children, as well as a woman arranged in a gynaecological position. At first sight, the display of the individuals shows a birth process. This might be also suggested by the presence of the *foetus* that was found on the right side of the woman, near her legs. The respective child, as anthropologically established, was 36-38 fetal weeks (8-9 gestational months), which might have been either aborted, prematurely delivered alive, or still born. The other children, of various ages, but sucklings, had been buried together with the dead mother and her *foetus*, initially providing the image of a quadruple birth. Yet, the data obtained after the anthropological study had suggested that they could not be born during one and the same such process.

[24] Black, Scheuer 1996, 427, Table 3.

[25] Schutkovski 1993, 199-205; Scheuer, MacLaughlin-Black 1994, 177-180.

[26] Black, Scheuer 1996, 425-434.

[27] Ubelaker 1978.

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We ought to mention here also the obvious physical effort exerted by the woman during her life, whose skeleton displayed not only emphasized muscle marks, but also, pathological aspects that normally seem to be connected with a more advanced age. Yet, if we refer to the osteoarthritis of the spine, we can imagine that the respective individual performed many activities involving that part of the skeleton, like loads lifting, or carrying.

As the burial is located in the proximity of a dwelling, we may also consider the idea of a sacrifice dedicated to its foundation, being meant to provide fecundity and prosperity to the family who inhabited that construction.

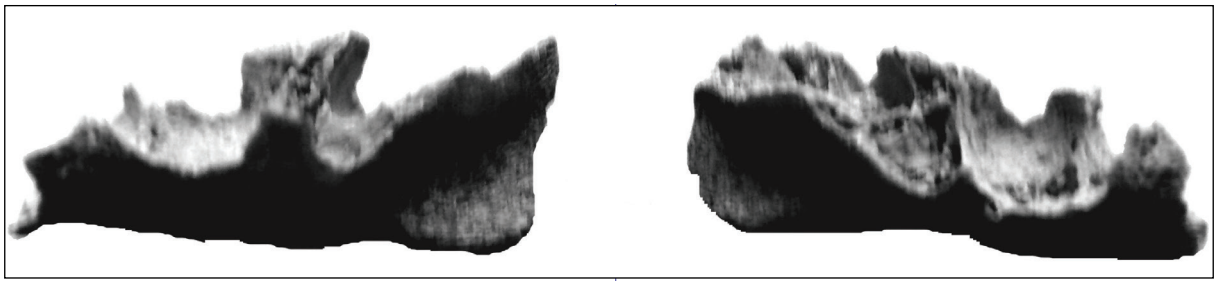

Fig. 31 – Copăceni-*La Moară*. Mandible fragments, Subject 5.

Fig. 32 – Copăceni-*La Moară*. Right clavicle, Subject 5.

Fig. 33 – Copăceni-*La Moară*. Iliac bones, Subject 5.

Fig. 34 – Copăceni-*La Moară*. Long bones from the upper limbs, Subject 5.

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Fig. 35 – Copăceni-*La Moară*. Long bones from the lower limbs, Subject 5.

Table 1 – Measurements and indices of the right tibia of the woman skeleton.

No. Martin	Measurements	Dimensions and indices (mm)
1.	Maximal length	334
8.	Middle shaft antero-posterior diameter	24
9.	Middle shaft transversal diameter	18
8a.	Upper shaft antero-posterior diameter	33
9a.	Upper shaft transveral diameter	22
10b.	Minimal perimeter	76
	Robustness index	76.00
	Cross-section index	76.00
	Platicnemic index	66.66

Table 2 – Dimensions of the long bones of Subject 2.

Maximal length of the long bones	Dimensions (mm)
Right humerus	68
Right radius	57
Right tibia	67

Table 3 – Measurements carried out upon the *pars basilaris* of Subject 3.

***Pars basilaris* - measurements**	**Dimensions (mm)**
Maximal length	16.46
Sagittal length	13.23
Maximal width	15.07

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Table 4 – Dimensions of the long bones of Subject 3.

Maximal length of the long bones	Dimensions (mm)
Right humerus	65
Left humerus	65
Right radius	52
Right ulna	59

Table 5 – Measurements on the pars basilaris of Subject 4.

Pars basilaris- measurements	Dimensions (mm)
Maximal length	14.66
Sagital length	11.41
Maximal width	13.47

Table 6 – Dimensions of the right radius of Subject 4.

Maximal length of the long bones	(mm)
Right radius	50

Table 7 – Dimensions of the right radius of Subject 5.

Maximal length of the long bones	(mm)
Left humerus	61
Right ulna	57
Left ulna	56
Right radius	52
Right femur	67
Right fibula	59
Right tibia	61
Left tibia	61

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WATER MANAGEMENT IN BRONZE AGE FROM SUBCARPATHIAN CURVATURE (MONTEORU CULTURE)

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Key-words: Bronze Age, Monteoru culture, clay-finished pits.

Abstract: In this material we present a number of five pits, from Bronze Age, Monteoru culture, which we consider that at the time were used as water reservoirs. All the pits were discovered at Cârlomănești-*Cetățuia*, Vernești commune, Buzău County, starting with 2005. We remark the similarities between these five complexes such as a clay layer set on the walls and bottom, cylindrical or conical shape, as well as the special treatment applied to the bottom of the pits. As far as the clay layer is concerned, all cases involve fine, compact, unburnt clay varying between 0.5 and 3 cm of thickness, partially found on walls and fallen on the bottom of the pit were it constitutes a significant sediment, without visible human intervention. This is most likely evidence to the fact that the pits became waste disposal areas when they partially deteriorated.

Cuvinte-cheie: epoca bronzului, cultura Monteoru, gropi lutuite.

Rezumat: În materialul de față prezentăm un număr de cinci gropi aparținând epocii bronzului, cultura Monteoru, despre care considerăm că au servit ca bazine pentru captat și păstrat apa, cercetate la Cârlomănești-*Cetățuia*, com. Vernești, jud. Buzău, începând cu campania arheologică din anul 2005. În ceea ce privește aceste complexe, remarcăm câteva similitudini precum lutuirea pereților și bazei, forma cilindrică sau conică, precum și amenajarea de la bază. În ceea ce privește lutuiala, în toate cazurile este vorba de lut fin, compact, nears, cu grosimi variabile între 0,5-3 cm, surprins parțial pe pereți și căzut pe fundul gropilor, în depunere consistentă și fără imixtiuni de natură antropică. Aceasta constituie, probabil, dovada faptului că respectivele gropi au devenit spații de degajare a deșeurilor în momentul în care s-au degradat parțial.

Access to water in prehistoric communities, as well as the importance of water management has been a widely debated issue in the literature[1]. Based on the geographical area in question, specialists have identified various levels of implementation of the water management systems, as well as the development of related techniques. In the Middle East, it is believed that the need to organize a complex water management system, and create irrigation systems stood for a factor that led to the birth of city-states[2]. If, in this case, building techniques and solutions for water use were developed, it is still in the Middle East that flood prevention systems were identified. Mention must be made, first, of the discovery in Tell Jawa, in northern Jordan, of what is believed to be the oldest dam that has been documented so far, which is thought to have survived from the Bronze Age[3]. This structure is made of a double stone wall and soil and ash filling material, 80 meters long and 5 meters high, with a 42,000-cubic-meter capacity. Constructions with a similar role are documented in Petra[4] as well. We have no intention to dwell on the water intake and flood prevention systems in the Middle East associated to the Bronze Age, however, mention must be made of the rain water intake systems in Hara and Khirbet Dabab[5]. Other water intake systems were also documented on the American continent, the wells of Blackwater Draw (New Mexico), 14 such installations researched, some other 6 in Mustang

[1] Grahame 1944; Mithen 2010.

[2] Steward 1955; Wittfogel 1957; Adams 1966; Adams 1978.

[3] Fahlbusch 2007.

[4] Rawlings, Woodburn 1996; Philip 2008.

[5] Braemer *et alii* 2009.

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Springs (Texas) and McClellan Wash (Arizona) that includes 8 wells[6]. Two of the Blackwater Draw wells had red raw clay-finished walls[7].

In Central Europe, several wells were documented. They had walls lined with wooden beams and were dated back to the Early Bronze Age, in Zwerkau, Germany[8]. The Neolithic findings in Altscherbitz, Brodau and Eythra, represented by wells with beam-protected edges, are also known in Europe[9].

As far as the basin of the Carpathian Mountains is concerned, such a find is known from the Foeni-Gaz site in the Timiș County, which is dated back to the Early Bronze Age, the Nagyrev civilisation[10].

The archaeological research at Cârlomăneşti-*Cetăţuia*, Verneşti commune, Buzău County allowed for the identification of over 100 pit-type complexes, which were dated to the Bronze Age, the Monteoru civilisation, based on finds and stratigraphy. In terms of shape, the pits are taper-shaped, cylinder-shaped, and conical. They vary in size and have diameters ranging from 0.60 meters to 2.00 meters (top and bottom), and digging depths of up to 2.00/2.40 meters[11].

The pit-type archaeological complexes are common in Bronze Age settlements. Exceptions are, however, Băneasa and Căţelu Nou, for the Tei I levels, where no pit was identified[12]. Sadly, most often these complexes were not paid too much attention to by researchers and the literature has been dealing with them quite briefly. More detailed information on the pits was provided given that the pits included archaeological artifacts of interest and specific importance in researching certain issues, have sizes that were considered impressive[13] or ritual purposes were assigned to them[14].

As concerns the initial purpose of this sort of structure, few are the cases where clear evidence is identified and many of the statements made are merely a matter of speculation. It is however a certain fact that most of the identified and researched pits, regardless of the reason they were conducted for in the first place, became waste disposal areas, except for the pits with ritual offerings. With a view to define the initial function of the pit-type complexes, the type of artifacts of archaeological relevance, their positioning in the settlement layout, as well as the various construction solutions used (wall shape, finishing) are considered. Several pit types were defined on the basis of these criteria:

a. Storage or supplies pits. Such pits were found and looked into in Morteni, Dâmboviţa County[15] – Gumelniţa culture, Valea Lupului, Iaşi County[16] – Cucuteni culture, Lişcoteanca-*Movila Olarului*, Brăila County[17] – Stoicani-Aldeni culture, Odaia Turcului, Dâmboviţa County[18] – Monteoru culture etc. In these cases, the pits shared certain characteristics related both to the finds, and the wall finishings. In Lişcoteanca-*Movila Olarului*, Nicolae Harţuche and Florin Anastasiu found a clay-finished pit containing a significant amount of burnt seeds[19]. In Morteni, Dâmboviţa County, it is mentioned that *an amount equal to approximately two sacs of botanical material*[20] was found in one of the pits, which most likely gives this cavity the function of a supplies pit. The sites in the Getic settlement of Satu Nou, Oltina commune, Constanţa County[21], are also considered supplies pits. In this case, the pits were positioned in the proximity of the dwellings, were taper shaped, were shallow and had clay-finished walls[22]. The archeologists state that larger pits were found and studied. They had clay-finished walls and, in one case, the pit was supposed to have been intentionally set on fire after the clay finishing had been applied for protection against rodents. However, no mention is made of the content of the pits, which could reveal their function as supplies pits given that tests and palaeoethnobotanic analyses in this site were made on samples collected from the habitation stratum[23]. As far as the first Iron Age is concerned, mention must also be made of the finding in Tăşad, Drăgeşti commune, Bihor County[24]. A taper-shaped from Hallsttat period pit was identified here. It had its bottom diameter larger than its top

[6] Hirst 2010.

[7] Hirst 2010.

[8] Stäuble, Hiller 1998.

[9] Tegel *et alii* 2012.

[10] El Susi 2012.

[11] An analysis of the pit-type complexes in Cârlomăneşti-*Cetăţuia*, com. Verneşti, jud. Buzău was done by Alexandru Oancea in Oancea 1976. The research looked into the pits dated back to the final stages of Monteoru identified in the Cârlomăneşti archaeological site only.

[12] Leahu 1966, 58.

[13] Bobi 1991, 19.

[14] Oancea 1976, 195; Sîrbu *et alii* 2011, 60, 79; Schuster, Popa 1995; Leahu 1966, 59; Ciugudean *et alii* 2000.

[15] Cârciumaru 1996, 91, note 374.

[16] Cârciumaru 1996, 124.

[17] Dragomir 1983, 93; Harţuche 1980.

[18] Cârciumaru 1996, 94.

[19] Harţuche 1980.

[20] Cârciumaru 1996, 91.

[21] Irimia, Conovici 1989.

[22] Irimia, Conovici 1989.

[23] Cârciumaru 1996, 113.

[24] Chidioşan 1987; Chidioşan 1983.

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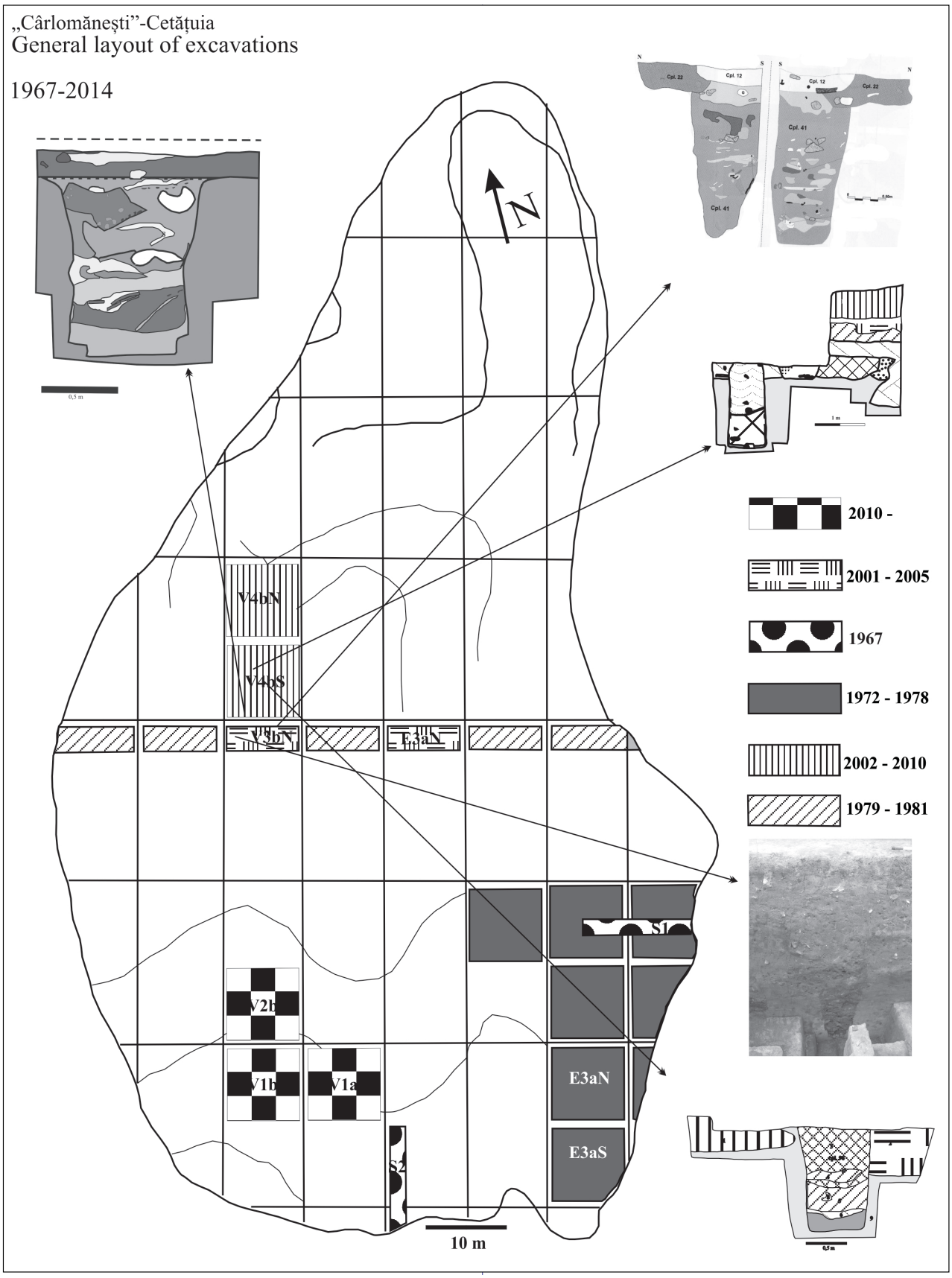

Fig. 1 – General layout of the Cârlomăneşti-*Cetăţuia*, Verneşti commune, Buzău County, archaeological excavations. Positioning of the discussed complexes.

diameter and clay-finished walls. Approximately 5 kilos of seeds were found in it[25]. Given the fact that those are *triticum* seeds, this find may be considered to have had the function of a storage pit.

Unfortunately, the literature most often uses the term of *storage or supplies pit* alone and does not provide explanations to uphold such alleged func-

[25] Cârciumaru 1996, 119.

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tion as it is, in general, customary to believe that many of the pit-type sites had the role of supplies storage, at times ethnographic examples being mentioned to support such assumptions[26]. Another argument in favour of such interpretation is the presence in the said pits of pottery fragments coming from large-sized containers[27].

b. Clay winning pits. This category is considered to include pits that were more or less found in the sterile layer. For the so-called Suciu de Sus culture group, with regard to the Petea settlement, mention is made that the pits reaching the sterile layer were clay winning pits[28]. An equally clay winning role is assigned to the Tei pits[29] as well etc. The archaeological research of the latest years in Bronze Age, and Monteoru culture sites, in Buzău, Cârlomăneşti-*Cetăţuia*, Verneşti commune, Pietroasa Mică-*Gruiu Dării*, Pietroasele commune and Târcov-*Piatra cu Lilieci*, Pârscov commune, have enabled the identification of such complexes that do not reach the sterile level, which is conducive to the conclusion that they did not have the function of clay winning pits. As to the sites of Pietroasa Mică-*Gruiu Dării* and Târcov-*Piatra cu Lilieci*, we should mention that the archaeological sterile is mostly represented by the bedrock and clay rich in iron components, which was not suitable to be used as building material. We believe that any endeavours to excavate such pits were pointless, particularly considering that the areas in the nearest vicinity provided alternative solutions. As concerns a correlation between pit shape and pit initial function, clay winning, we do not believe that a behavioural pattern can be defined, at least not in the sites in question.

This is the general context of the discussions on the pit-type complexes in the Bronze Age settlements where we focus on several of the pits identified and researched in the Monteoru culture settlement in Cârlomăneşti-*Cetăţuia*. There are five clay-finished pits, found in the 2005-2008 excavation campaigns: complex 36/2005, complex 39/105 – the research of which started in 2005 and was completed in 2008, complex 41/2005, complex 71/2007 and complex 96/2008.

*Complex 36/2005 (*Fig. 2/1, 2*)*. Identified in the W3bN section, 2.10 meters from the current floor level – with an upper diameter of approx. 0.75 m. The pit had a conical shape and had been dis-

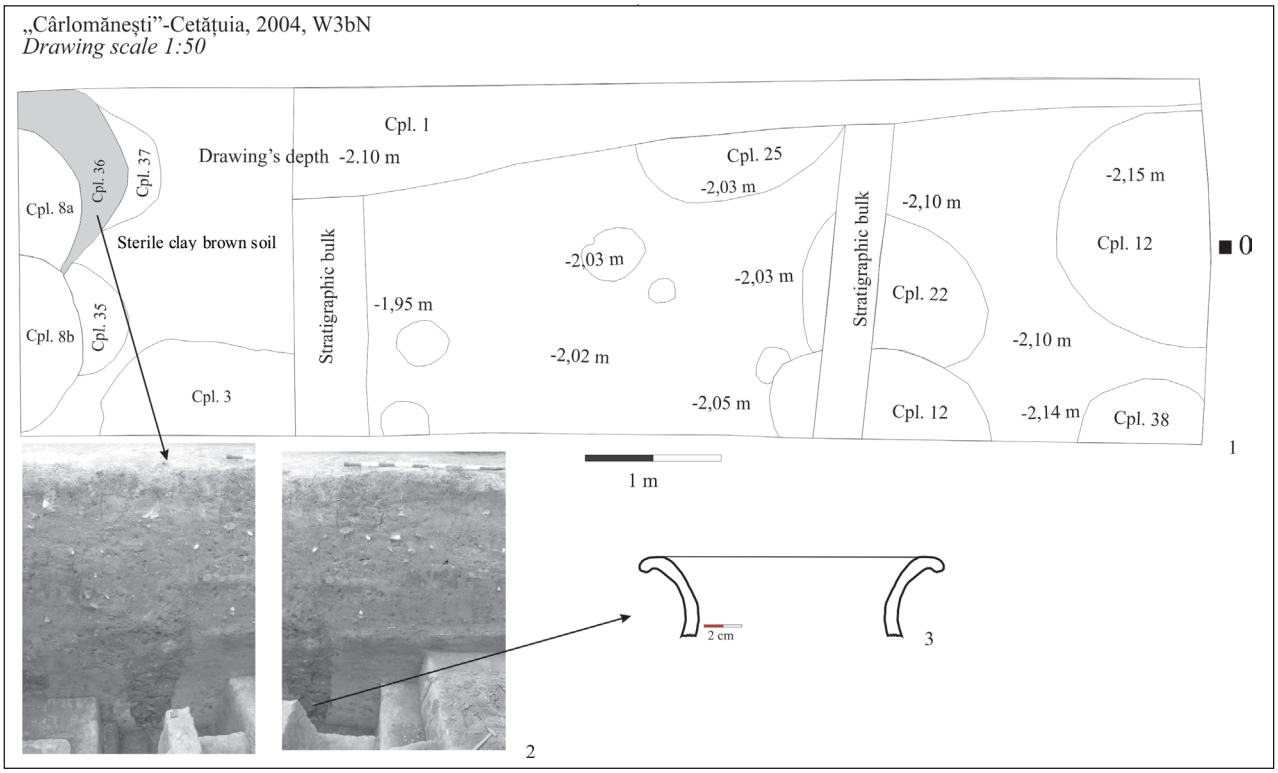

Fig. 2 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1. Plan of area W3bN, -1.95/2.10 m level; 2. Complex 36; 3. Cup fragment found on the bottom of complex 36.

[26] Vasiliev *et alii* 2002, 32.

[27] Vasiliev *et alii* 2002, 32.

[28] Pop 2009, 12.

[29] Leahu 1966, 58.

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turbed by Iron Age human intervention, complexes 8a, 8b and 37 (Fig. 2/1). It had walls finished with white-greenish clay, at places, on an average, 0.5-2 cm thick. Several large river rocks were set at its base. Their layering position reveals the fact that they were set in position after the clay application. The filling of the complex was made of brown-grey, comparatively compact soil, highly pigmented with bits of coal and burnt clay, incorporating small amounts of ash film, pottery fragments, hardened hearth burnt pieces and bone fragments. Among the pottery finds stands out a fragment coming from a cup with everted rim, made of semi-fine, well-homogenized paste, grey in colour and polished on the outside, and grey with brown and blackish shades in the inside (Fig. 2/3). The shard was found among the stones on the pit bottom. Some other three pottery shards were found with it, one most likely coming from a globular-shaped cup, a fragment from a dish with an upper inner rim, as well as a burnt hearth piece 4.5 cm thick.

Complex 41/2005[30] (Fig. 5, 6/5, 6). It was identified in area W3bN, at approx. -1.00 meter from the floor level and it is conical in shape. Medium-sized stones (10x15 cm) were set on the bottom of the pit. As the upper part of this complex was affected by some Iron Age intervention (complex 12)[31], it is impossible to indicate the pit starting level – complex 41. The pit was also studied in section as deep as 1.70 meters. Starting the level where it was identifiable, it had an oval plan, had a 0.90x0.95 meter diameter and clay-finished walls and bottom. The filling consisted of brown-yellowish soil, pigmented with coal bits, raw clay white-greenish in colour, coming from the wall clay layer, yellow clay films varying in terms of thickness and texture, burnt clay bits, bone fragments, and pottery shards[32]. Among the finds of archaeological relevance, mention must be made of a particularly interesting psal jaw piece that was the subject matter of a recent study[33], a large-size incisive tooth, a fragment of a bronze saltaleone[34], as well as several pottery fragments coming from dishes that could be fully or partially restored[35] (Fig. 4/1-4). Based on the analysis of the ceramic material, and the stratigraphic position of the complex, it is dated back to the later stages of the Monteoru culture.

Complex 39/105 (Fig. 3, 4/1). It was identified in areas W3bN/W4bS, at approx. -1.90/1.95 meters from the floor level, is rather conical in shape and has a 0,60-meter hollow area at its bottom. The pit had an approximately oval plan, had a 0.90x0.66 m diameter, and its bottom and walls were covered in a clay layer, on an average, 1-2 centimeters thick. The filling composition reveals that the clay in the upper part of the pit collapsed and formed

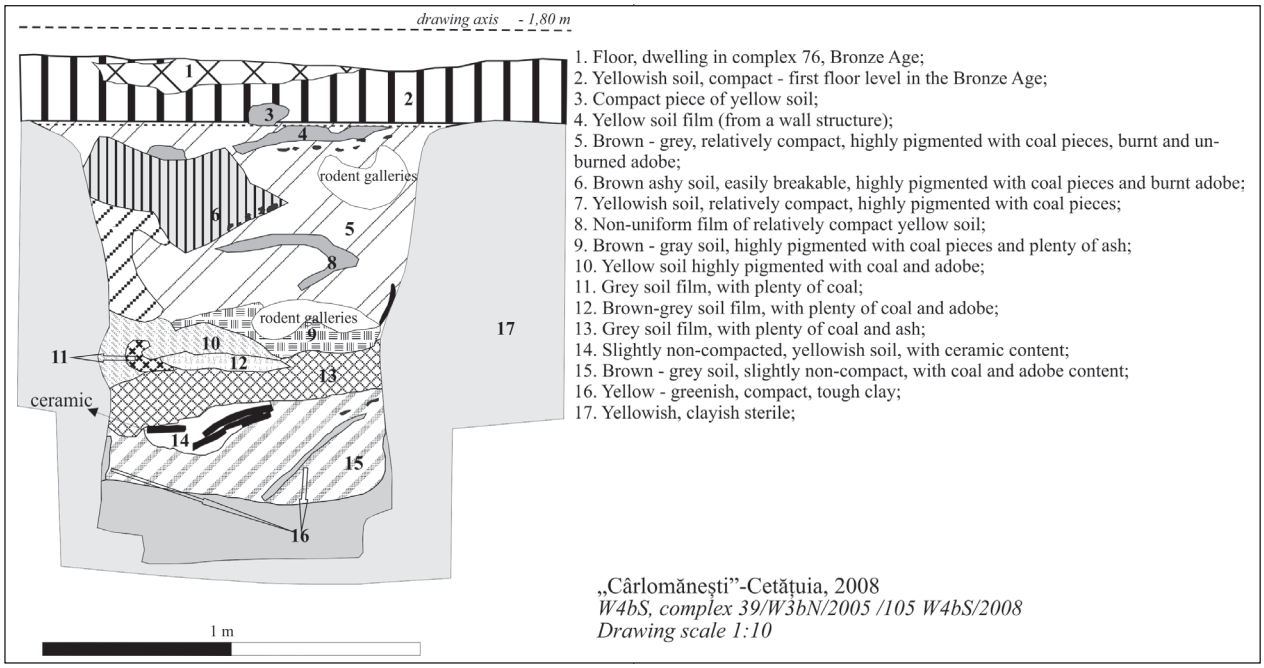
drawing axis - 1,80 m
1. Floor, dwelling in complex 76, Bronze Age;
2. Yellowish soil, compact - first floor level in the Bronze Age;
3. Compact piece of yellow soil;
4. Yellow soil film (from a wall structure);
5. Brown - grey, relatively compact, highly pigmented with coal pieces, burnt and unburned adobe;
6. Brown ashy soil, easily breakable, highly pigmented with coal pieces and burnt adobe;
7. Yellowish soil, relatively compact, highly pigmented with coal pieces;
8. Non-uniform film of relatively compact yellow soil;
9. Brown - gray soil, highly pigmented with coal pieces and plenty of ash;
10. Yellow soil highly pigmented with coal and adobe;
11. Grey soil film, with plenty of coal;
12. Brown-grey soil film, with plenty of coal and adobe;
13. Grey soil film, with plenty of coal and ash;
14. Slightly non-compacted, yellowish soil, with ceramic content;
15. Brown - grey soil, slightly non-compact, with coal and adobe content;
16. Yellow - greenish, compact, tough clay;
17. Yellowish, clayish sterile;
rodent galleries
rodent galleries
ceramic
1 m
„Cârlomănești"-Cetățuia, 2008
W4bS, complex 39/W3bN/2005 /105 W4bS/2008
Drawing scale 1:10

Fig. 3 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. Southern profile of complex 39/W3bN/2005/105, W4bS/2008.

[30] Motzoi-Chicideanu *et alii* 2012.

[31] Motzoi-Chicideanu *et alii* 2012, 86, fig. 7.

[32] Motzoi-Chicideanu *et alii* 2012, 66.

[33] Motzoi-Chicideanu *et alii* 2012, 65-95.

[34] Motzoi-Chicideanu *et alii* 2012, 89, fig. 10/13.

[35] Motzoi-Chicideanu *et alii* 2012, 88-89, fig. 9-10.

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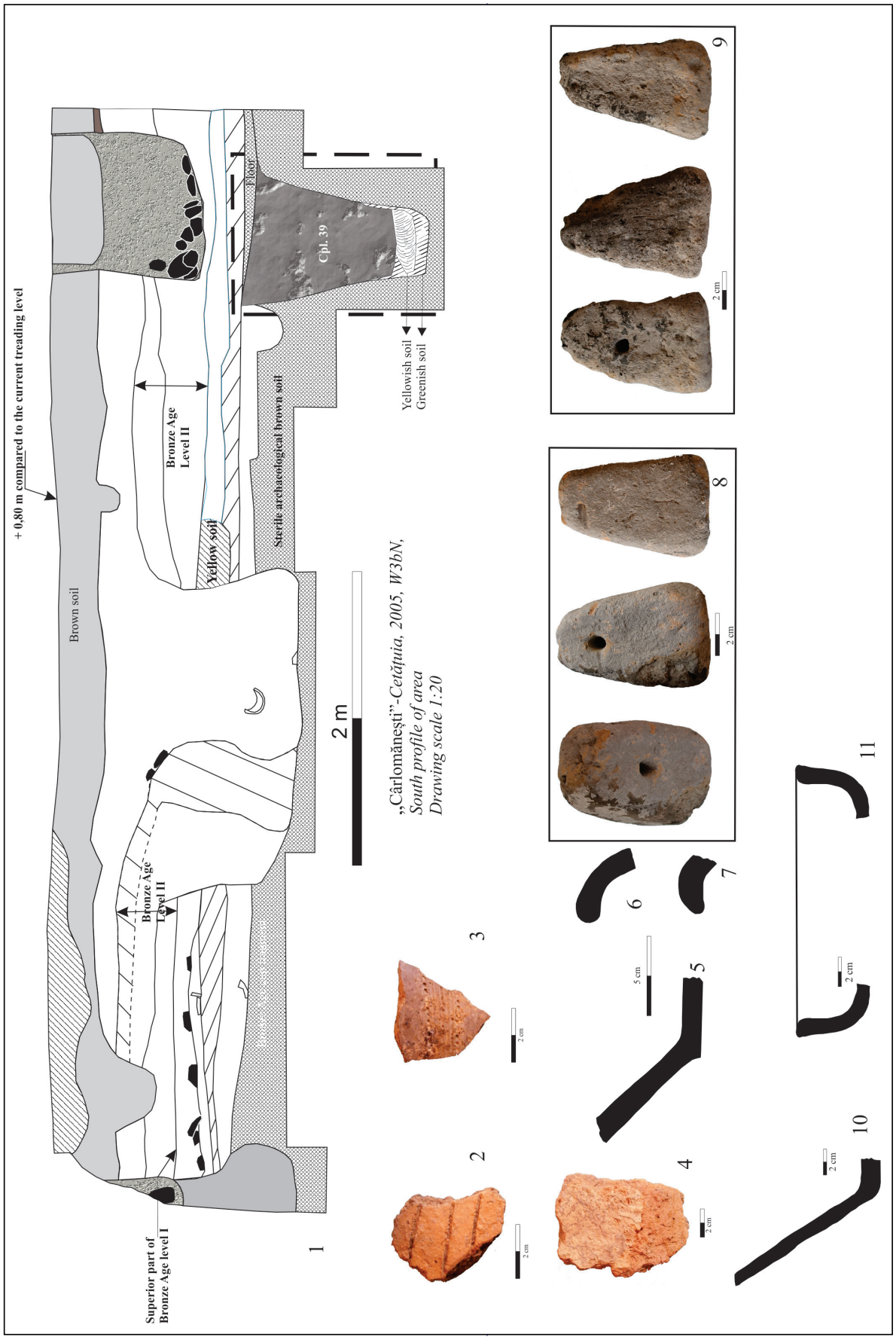

Fig. 4 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1. Southern section of area W3bN; 2-7,10-11. Pottery fragments found in complex 39/2005; 8,9. Pyramid-shaped weights made of clay, found in complex 39/2005.

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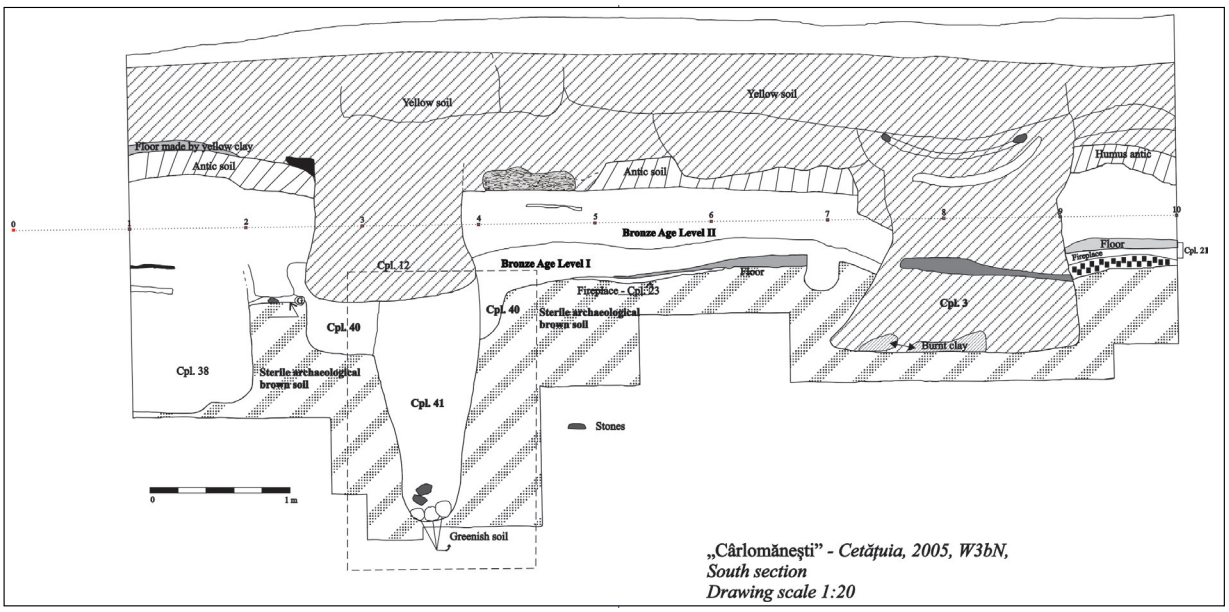

Fig. 5 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. South section of area W3bN (*apud* Babeș 2010, 142, pl. 5).

compact sediment, on an average, 15-20 cm thick in the lower part of the complex. The pit depth is 1.40 m. The filling overlapping the clay layer is dark-brown to medium brown in colour and features irregular films of yellow-greenish raw clay that fell off the walls, and dark brown soil with burnt clay bits coming from the walls above the ground, with lengths ranging between 3 and 12 cm. The filling included burnt and unburnt clay bits, thin ash sediments, coal pigment and bone and pottery fragments. The filling of this complex consisted of several pottery shards that could be fully or partially restored, a fragment coming from a curved stone knife, two partially preserved whetstones, a bone pendant and two pyramid-shaped clay weights (Fig. 4/8, 9). A fragment of a bowl made of semi-fine, well-homogenized paste grey-blackish in colour on the outside, black and polished in the inside (Fig. 4/11) stands out among the identified ceramic finds (a total of 60). Beside it, there is also a fragment of a wide-rimmed dish made of semi-fine paste, red-orange and grey in colour, with grey and blackish spots on the outside and a polished orange-reddish surface in the inside (Fig. 4/10). In terms of stratigraphy, the complex is overlapped by the floor of a semi-sunken dwelling dated back to the later Monteoru culture (Fig. 1/1). Based on a pottery analysis, the complex is dated to the period of Ic3 pottery style of Monteoru culture. The pit filling composition enables us to identify several aspects that are characteristic of the community

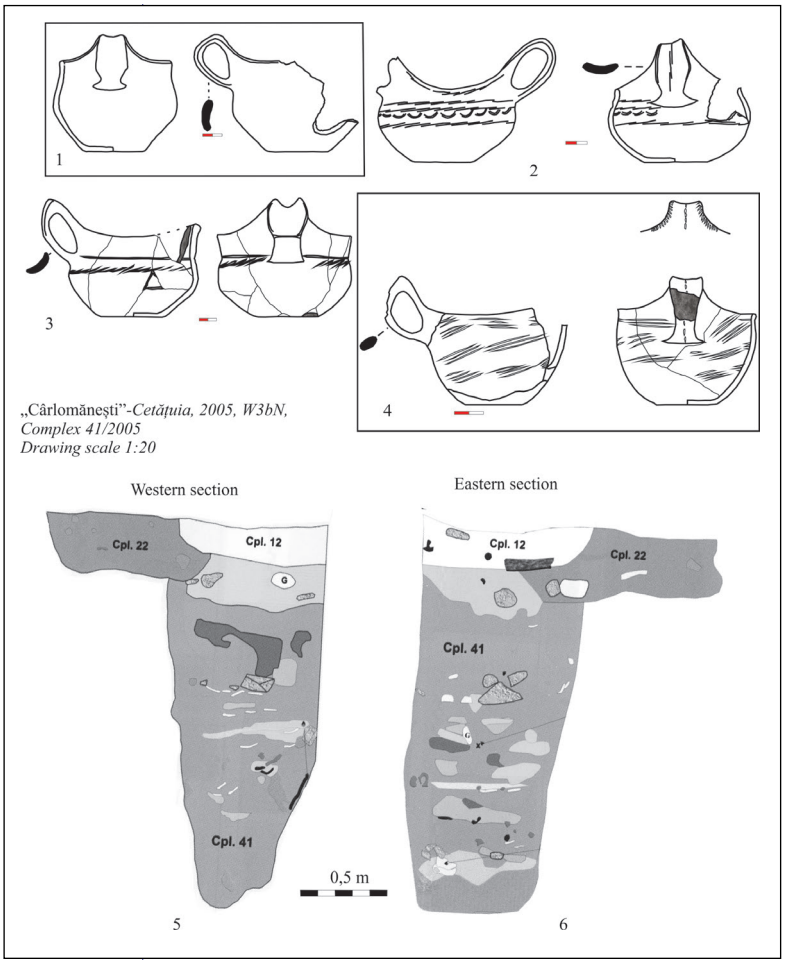

Fig. 6 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1.-4. Ceramic fragments found in complex 41/2005; 5. Western section of complex 41; 6. Eastern section of complex 41 (*apud* Motzoi-Chicideanu *et alii* 2012, 87/pl. 8, 88/pl. 9).

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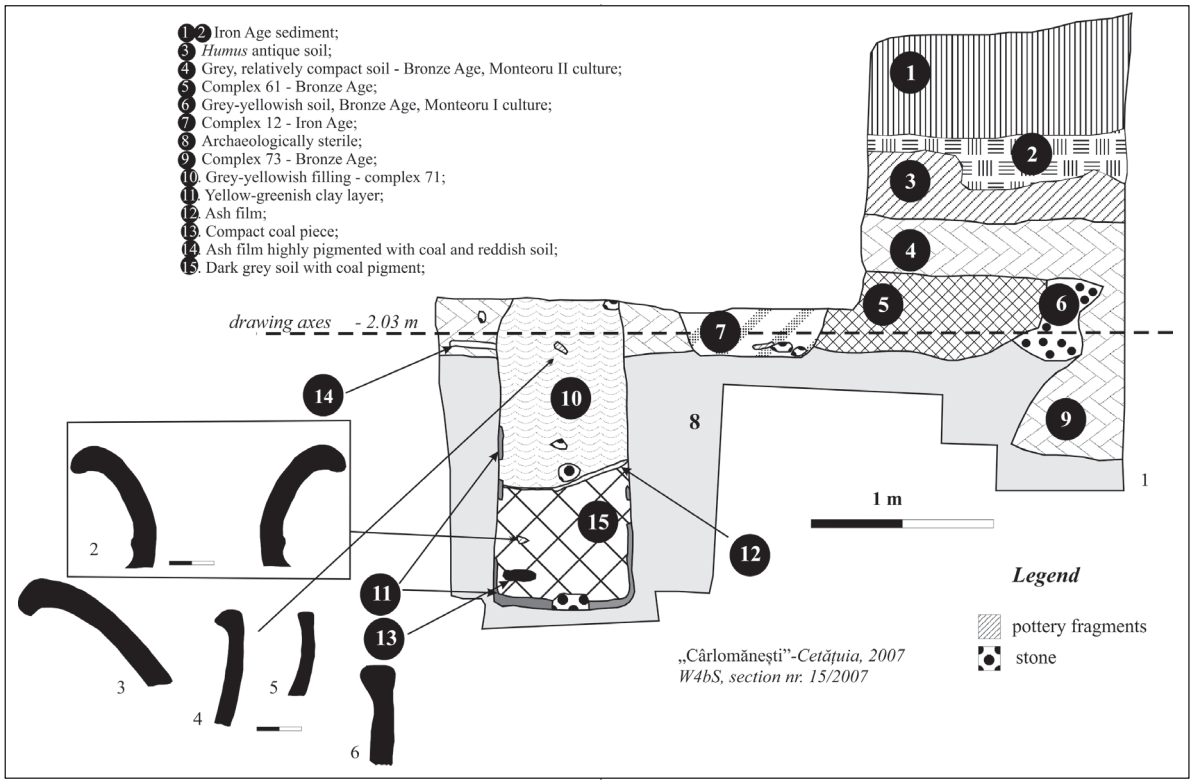
1,2 Iron Age sediment;
3 Humus antique soil;
4 Grey, relatively compact soil - Bronze Age, Monteoru II culture;
5 Complex 61 - Bronze Age;
6 Grey-yellowish soil, Bronze Age, Monteoru I culture;
7 Complex 12 - Iron Age;
8 Archaeologically sterile;
9 Complex 73 - Bronze Age;
10 Grey-yellowish filling - complex 71;
11 Yellow-greenish clay layer;
12 Ash film;
13 Compact coal piece;
14 Ash film highly pigmented with coal and reddish soil;
15 Dark grey soil with coal pigment;
drawing axes - 2.03 m
1 m
Legend
pottery fragments
stone
„Cârlomănești"-Cetățuia, 2007
W4bS, section nr. 15/2007

Fig. 7 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1. Eastern section of complex 71/2007; 2-6. Ceramic fragments found in complex 71/2007.

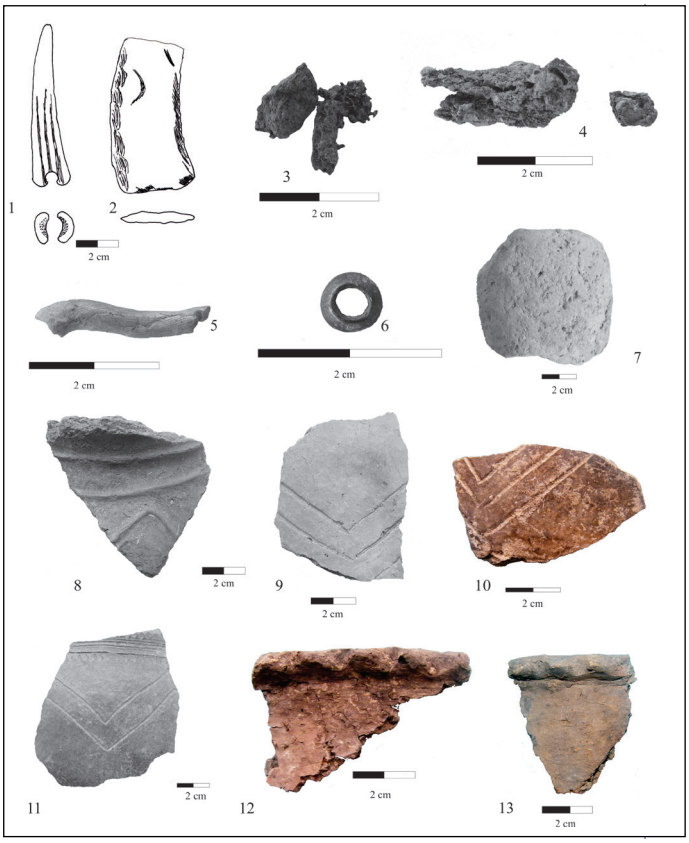

Fig. 8 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. Archaeological inventory of complex 71/2007, 1. Bone psal-jaw (?); 2. Curved stone knife; 3, 4. Bronze fragments; 5. Coral fragment with perforation; 6. Glassy paste bead; 7. Clay weight fragment; 8-13. Ceramic fragments.

members' behaviour. The films that were found on the pit walls, having a composition similar to clay, are indicative of the fact that this complex was diabled at a time when degradation had partially occurred. The identification of domestic waste, debris from dismantled buildings – burnt clay, compact coal fragments, pottery shards, burning waste – ash etc. – could be conducive to the secondary function of the pit, waste disposal / hygienization space.

Complex 71/2007 (Fig. 7/1). It was identified in areas W4bS, box trench C2, at approx. -1.93/1.95 meters from the floor level and is rather cylindrical in shape. The pit had an almost oval plan, has an 0.50x0.55 m top diameter, 80 cm bottom diameter and an approx. 1.70 meter depth. The pit had its bottom and walls covered in a clay layer 1-3 cm thick diameter, and several medium- and large-sized stones (15x20 cm) set on the bottom. Their positioning shows that they were set at a time subsequent to the clay layer application. The pit filling consists of grey soil that was not compacted, with marked coal pigmentation. Its texture also reveals a grey film, on an average, 3-4 centimeter thick. In the upper part, the filling is grey-yellowish and more compact. The following were taken out of the filling of the complex: pottery shards (Fig. 7/2-6, 8/8-13, 9/1-14,10/1-3), a fragment of curved stone knife (Fig. 8/2), a processed bone frag-

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ment, possibly a psal jaw piece (?) (Fig. 8/1) several metal (bonze?) bits the function and origin of which could not be determined due to their advanced stage of physical and chemical degradation (Fig. 8/3-4), a glassy paste bead (Fig. 8/6), a coral fragment with circular perforations (Fig. 8/5), a fragment of a clay weight (Fig. 8/7) and several bone fragments. We should note the small amount of bones and ceramic fragments. The structure of the filling, as well as the *in situ* positioning of the clay layer at the upper part of the pit could be the result of the deactivation of the complex at a time immediately following the degradation of the structure. Based on the ceramic analysis, the complex may be categorized as belonging to the Ic2 pottery style of Monteoru. The fragments decorated with girdles in relief arranged horizontally or zigzagging on the walls of the dishes are associated with pottery fragments with Ic3 decorations, which would place this complex at a time post-complex 39/105. We should highlight the fact that in Cârlomănești-*Cetățuia*, just as in the stratigraphy of Pietroasa Mică-*Gruiu Dării* and Târcov-*Piatra cu Lilieci*, no chromatic and texture differentiation among the so-called stages of evolution of Monteoru, Ic3 and Ic2, can be seen in any of the major sections or stratigraphic bulks. Hence, dating is possible only by analysis of the pottery based on the Sărata Monteoru[36] pattern.

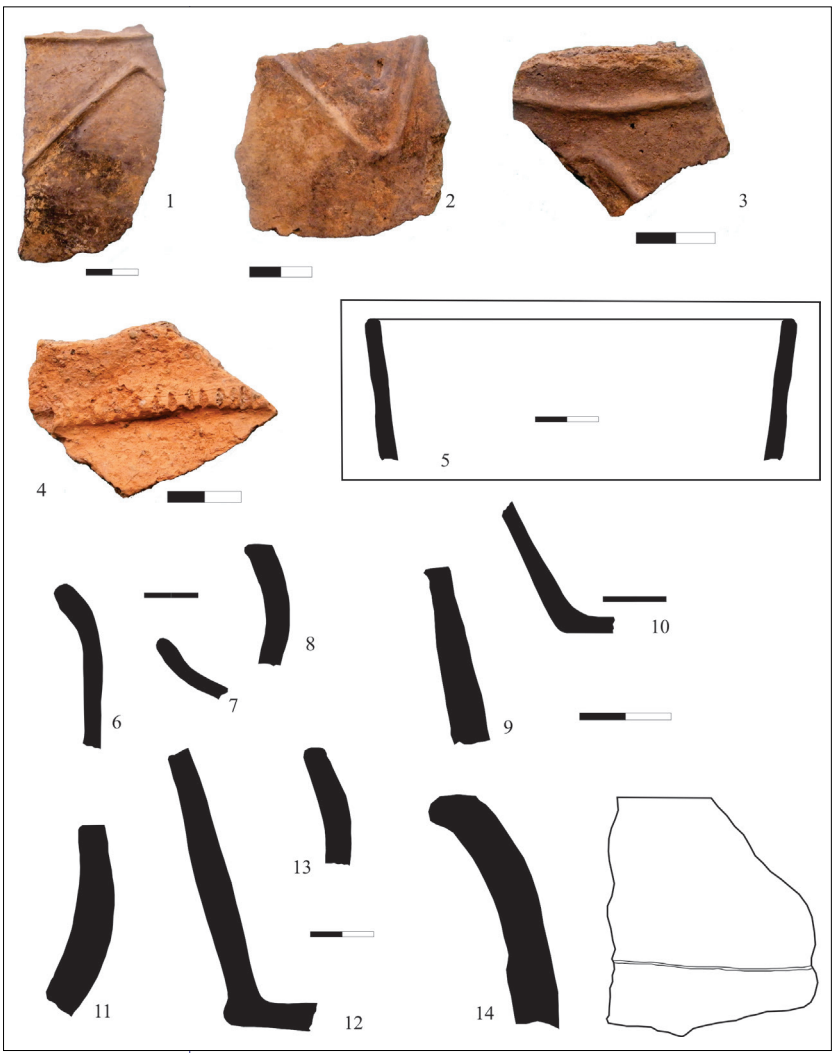

Fig. 9 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. Arheological inventory of complex 71/2007; 1.-14. Ceramic fragments.

Complex 96/2008 (Fig. 9/1). It was identified in areas W4bS, box A4-A5, at approx. -2.00 meters from the floor level and is rather cylindrical in shape. The complex had an almost oval plan, had an upper diameter of 0.90x0.70 meters, a lower diameter of 0.70 meters and is approx. 1.40/1.45 meters deep. The pit had its base and walls covered in a clay layer that was, on an average, 1-3 centimeters thick. Four medium- and large-sized stones (15x20 cm) were placed on the bottom of the pit at a time immediately following that when the bottom was finished with clay. The filling of the pit is not uniform and several levels can be identified. We cannot precisely say to what extent they correspond to different filling stages. In the lower part, an approx. 20 cm thick layer of raw clay is visible, that is yellow-greenish, compact, similar in structure and composition with the clay found *in situ* on the pit walls, and that comes from the clay fallen from the upper part of the walls. Fine traces of organic residue can be seen in this layer which reveals no archaeological material of relevance. The clay present on the pit walls as well enabled us to identify the same fine traces of organic residue on the outer part of the clay layer, on an approx. 2-3 mm area, with quite uniform positioning. A comparatively large amount of ash was thrown in within a very brief period of time after the complex was degraded due to the clay on the upper part of the walls having fallen off. An approx. 10 cm thick layer of ash pigmented with coal bits was noted. Another stage is shown by significant sedimentation of brown-grey soil that was not uniform, pigmented with coal and burnt clay layer, where compact clay pieces from the clay layer of the pit walls can be seen. At its upper part, the filling is made of dark brown-grey uniform soil also pigmented

[36] Zaharia 1987; Zaharia 1990; Zaharia 1991; Zaharia 1993.

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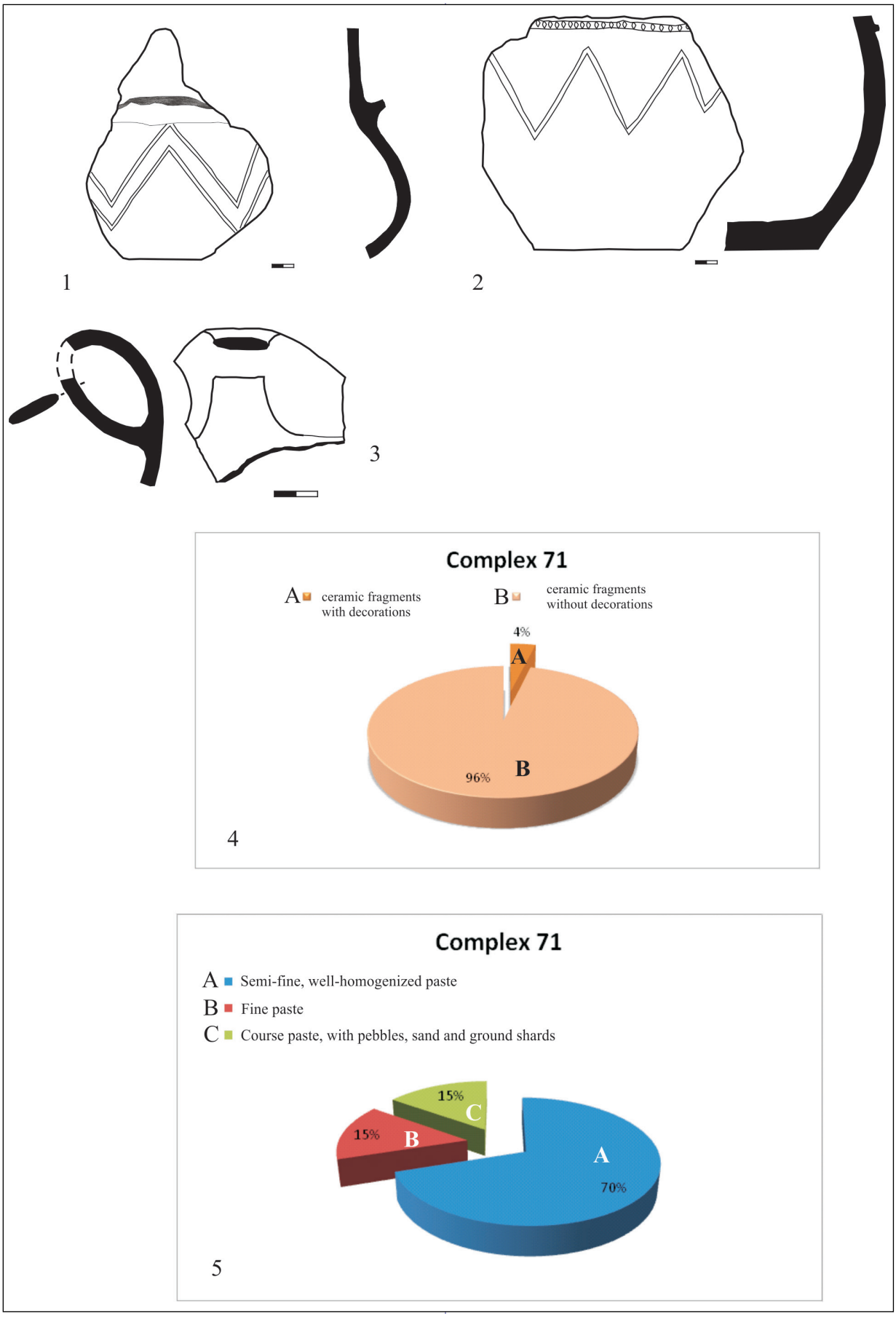

Fig. 10 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1-3. Ceramic fragments found in complex 71/2007; 4, 5. Graphic statistics based on the ceramic material from complex 71/2007.

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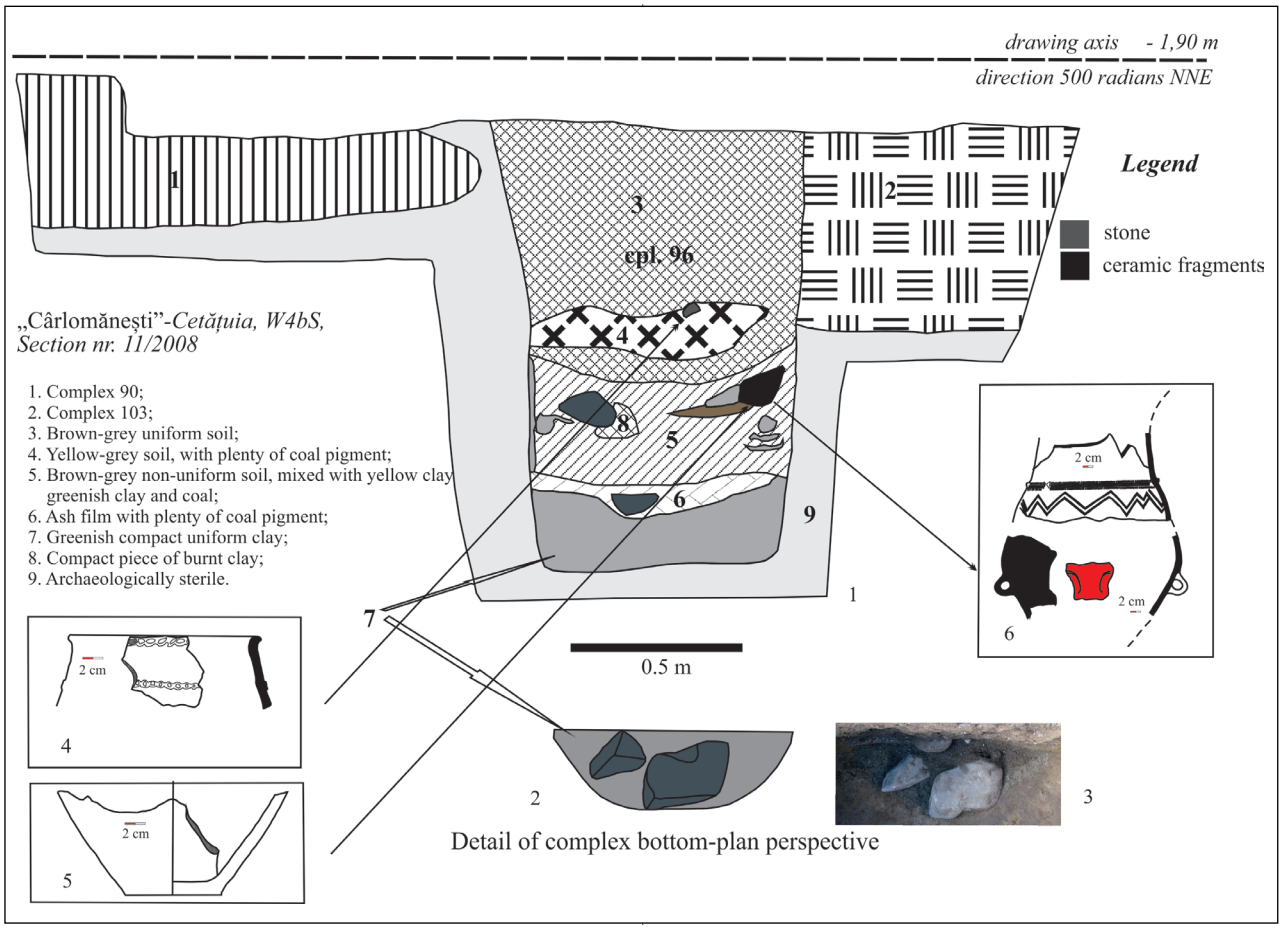
drawing axis - 1,90 m
direction 500 radians NNE
Legend
stone
ceramic fragments
„Cârlomănești"-Cetățuia, W4bS,
Section nr. 11/2008
1. Complex 90;
2. Complex 103;
3. Brown-grey uniform soil;
4. Yellow-grey soil, with plenty of coal pigment;
5. Brown-grey non-uniform soil, mixed with yellow clay greenish clay and coal;
6. Ash film with plenty of coal pigment;
7. Greenish compact uniform clay;
8. Compact piece of burnt clay;
9. Archaeologically sterile.
cpl. 96
0.5 m
2 cm
Detail of complex bottom-plan perspective

Fig. 11 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1. Southern section of complex 96/2008; 2.-3. Details of the bottom of the complex 96/2008; 4.-6. Ceramic fragments found in complex 96/2008.

with coal bits and burnt clay layer. The presence of the comparatively compact yellow-greenish clay pieces, that are similar in structure and composition with the clay seen *in situ* on the pit walls at various filling levels, can be a consequence of the fact that the pit was turned into a domestic waste disposal area at a time following its degradation, and also that it took some time for the pit to be completely filled up. Pottery shards (Fig. 11/4-6), a metal (bronze?) fragment of unknown function due to the severe physical and chemical deterioration, two bone fragments with processing/use marks (Fig. 11/1, 2), a stone axe damaged by extensive use (Fig. 12/5) and several bone fragments from various animals collected from the filling. The total number of the pottery fragments identified and taken out of the site was 208 among which minimum 12 pottery shapes could be identified. Among them, there are several pottery fragments coming from a *Spendegefäß* (13 fragments) (Fig. 11/6), with very good analogies in Sărata Monteoru site[37]. The analysis of the ceramic material, as well as the stratigraphy of the complex allows us to date it to the period of the Ic3 pottery style of Monteoru culture. Another remarkable find is a ceramic fragment with perforations under its rim (Fig. 12/12), with analogies in the Zănoaga IIb phase of Monteoru culture[38]. Also, similar finds were recently signaled in Pietroasa Mică-*Gruiu Dării*, Buzău County[39] as well.

Assumptions. First, it is worth noting that, for all complexes in Cârlomăneşti-*Cetăţuia* that have been subject to analysis, several common elements were found, the clay layer set on the walls and bottom, cylindrical or conical shape, as well as the special *treatment* applied to pit bottom. As far as the clay layer is concerned, all cases involve fine, compact, unburned clay, their thickness varying between 0.5 and 3 cm, partially found on walls and fallen on the bottom of the pit as significant sediments, having suffered no human intervention. This is most likely evidence to the fact that the pits became waste disposal areas when they became partially deteriorated.

The clay applied on the walls and at the bottoms of the pit is good quality material, with no burnt clay, coal, ash, pebbles and other such materi-

[37] Zaharia 1987, fig. 11/8.

[38] Motzoi-Chicideanu, Şandor-Chicideanu 1999, 80, fig. 15/7.

[39] Sîrbu *et alii* 2011, 254, fig. 66/8.

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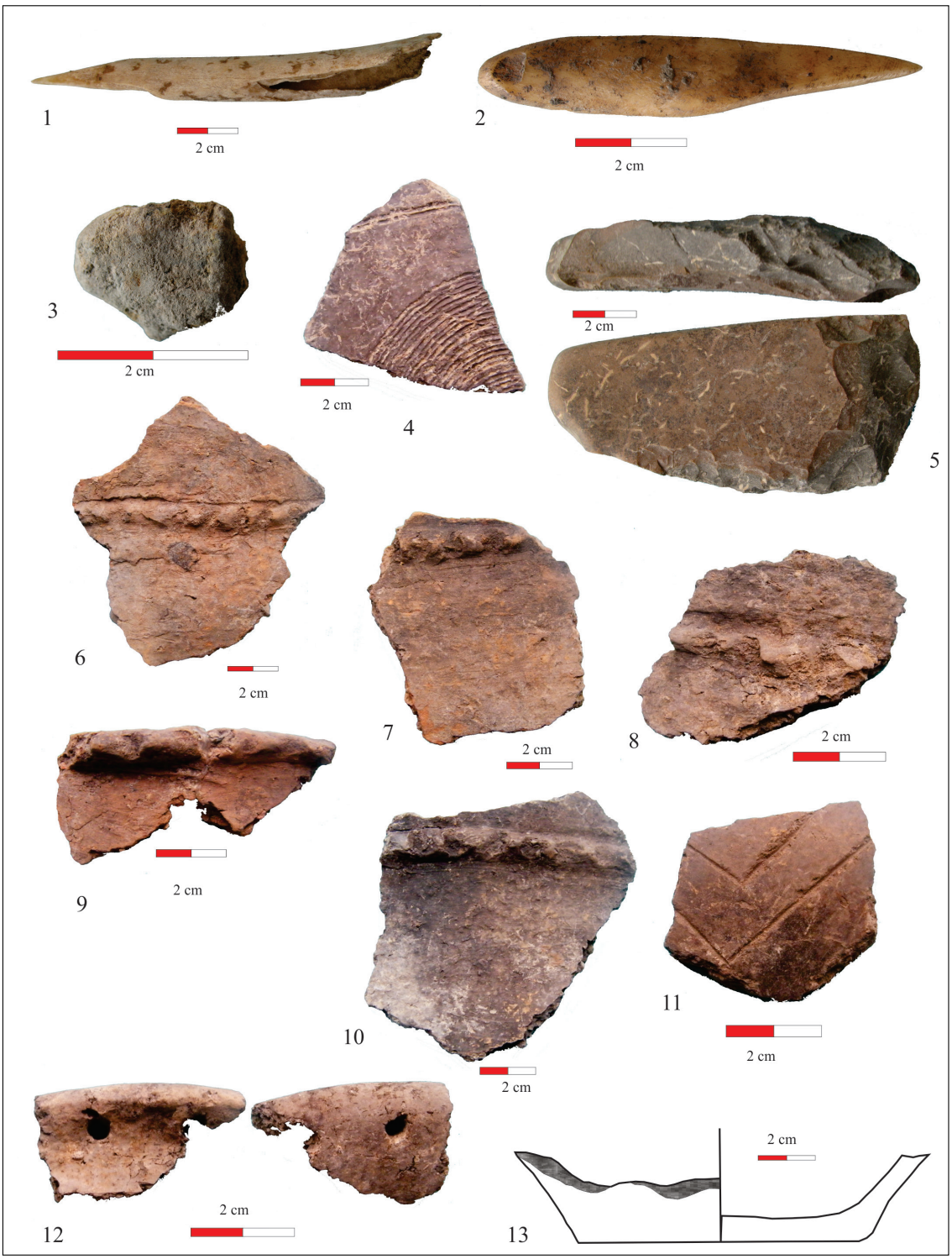

Fig. 12 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. Archaeological artifacts of complex 96/2008. 1. Bone point; 2. Bone tool (needle?) under processing; 3. Metal (bronze?) fragment; 5. Stone axe; 4., 6.-13. Ceramic fragments.

als in its composition. As concerns the constructive solutions implemented to *set up* the bottoms of these complexes, three patterns can be seen: hollow area on the bottom of the pit (Fig. 3), stones set after clay layer application, and conical bottom with stones (Fig. 5, 7, 9/2, 3). In terms of stratigraphy, most complexes were excavated in the sterile layer. Another common characteristic is the comparative scarcity of archaeologically relevant material in the filling, which could be indicative of the fact that they were filled up within a rather brief period of time. The limited amounts of ceramic material – 38 fragments in pit 39/105, 325 pottery fragments in pit 71/2007, 208 pottery fragments in pit 96/2008, 60 pottery fragments in complex 41/2005 – could be just another proof in this respect; comparative report including other pit complexes identified and studied at Cârlomăneşti-*Cetățuia* dated back to the same time frames. In

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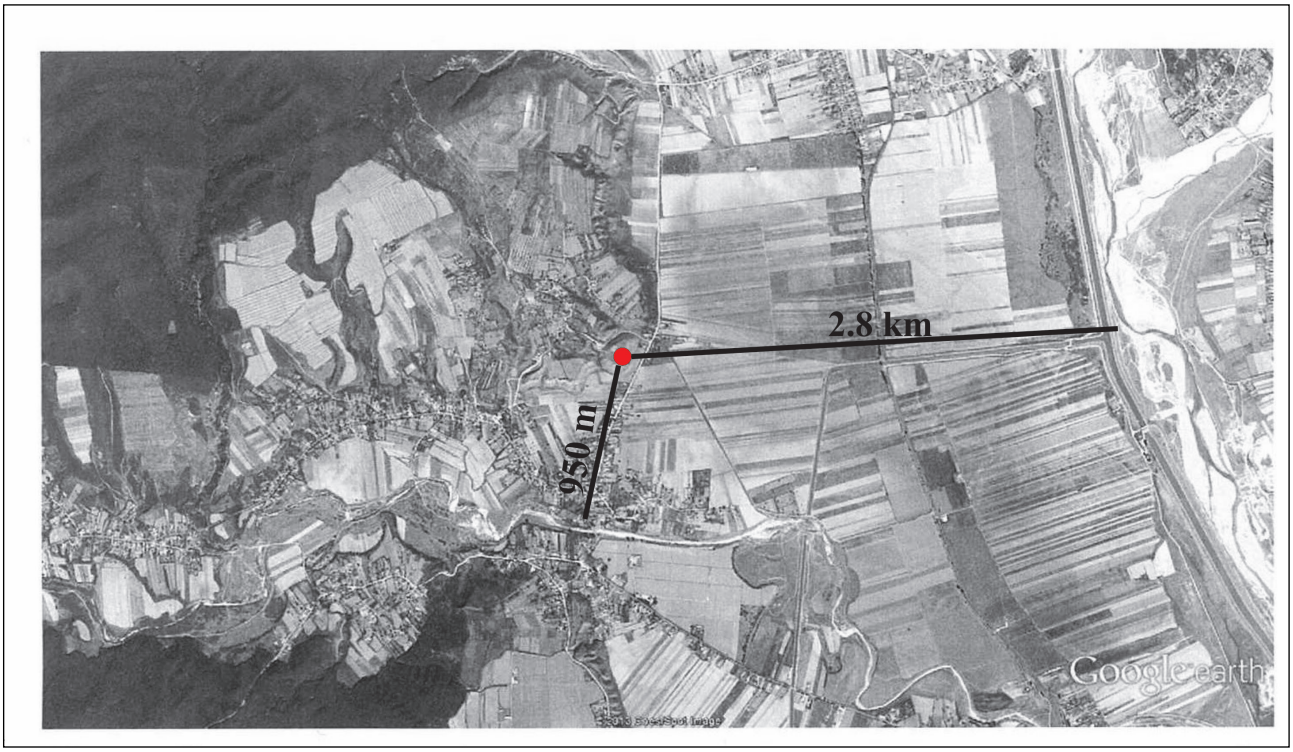

Fig. 13 – Cârlomănești-*Cetățuia*, Vernești commune, Buzău County. 1. Location of the archaeological site in relation to available water resources.

terms of pit shape, following a quantitative analysis comparing other pit complexes, they are rare in the settlement in questions, standing for approx. 5% as most of them are taper shaped.

These complexes are assigned the function of cistern pits, playing a role in rainwater storage[40]. In our opinion, the long-term presence of water in these complexes is proved by a series of elements identifiable in all five complexes: fine traces of vegetal residue imprinted in the wall clay layer, both in the *in situ* fragments and in the films set on the bottoms of the pits and in the filling, pit bottoms set up with stones or the creation of a niche having a role in macroscopic residue sedimentation on the bottom of the cistern (Fig. 11/3).

To support this hypothesis, we should discuss here a permanent water source in the near vicinity of the Cârlomăneşti-*Cetăţuia* settlement. The site is located on a promontory protruding out of a high terrace, where the Buzău and Nişcov Rivers[41] meet. The closest water source is in the west, the Nişcov River, flowing some 950 meters away, in a straight line. However, the Nişcov River, included in the extended basin of the Buzău River, is 22 kilometers long[42] and a feeble water course for the most part of the year. The other water source available to the community in the Bronze Age in Cârlomăneşti-*Cetăţuia* is the Buzău River. It flows in the east, 2.8 kilometers away in a straight line (Fig. 13/1). Unlike Cârlomăneşti, in other cases, settlements had water courses flowing in their proximity. In Sărata Monteoru-*Cetăţuia,* the Sărata Spring gathers the water drained from the slopes the settlement is located on; hence, it was not hard for the community living here to find water. A similar situation is that of the Pietroasa Mică-*Gruiu Dării* where the vicinity of the Dara Spring provided the necessary amount of water for the community living here in the Bronze Age. The presence of complexes of such use would be most likely justified by the scarcity of water.

Based on the analysis of the ceramic finds, as well as the layer reports, one may note that a preoccupation for the intake, and particularly storage, of water existed since as early as the first human Bronze Age settlements, as is the case of complexes 39/105 and 96/2008. We believe this excludes the idea that there was a water course in the vicinity of Cârlomăneşti promontory which had dried up or abandoned its water bed at a time following the start of habitation here. From this perspective, we find the reasons why the Monteoru culture people may have decided to settle here, despite certain water scarcity, increasingly puzzling.

[40] This is also discussed in a recent study by I. Motzoi-Chicideanu: *"We might think of it as being a water storage pit, given the greenish layer on its bottom. We lack however clear clues about what the purpose of this pit and (complex 41/2005) pit no. 36 may be"*. Motzoi-Chicideanu *et alii* 2012, 66.

[41] Babeş *et alii* 2002, 98.

[42] Muică 2012, 39.

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Other issues raised are the considerable effort to supply water to the settlement and the status of these complexes in the community. Did they serve one or several families? Were they joint property or the property of one individual / family / clan? As concerns the amounts of water these pits could store, they were quite significant as shown in the table below[43].

[43] Calculations done by engineer Sorin Bolocan whom we would like to thank for his effort.

Another issue concerns the possible structures at the upper part of the discussed pits. So far we have no evidence indicating any special structure in this respect, however, possible wooden covers or protection systems made of light perishable material that could not be found in the archaeological excavations should not be excluded.

Table 1

Complex 39/W3bN/2005	**Area**	**Radius**
H = 1.4	0.66	0.594
Top diameter = 0.9		
Bottom diameter = 0.8		0.5024
Diameter of hollow on the pit bottom = 0.6		0.4
Volume		**0.767 m^3 = 767 liters**
Complex 36/2004		
H = 1.6		
Top diameter = 0.75		0.4415625
Bottom diameter = 0.4		0.1256
Volume		**0.428 m^3 = 428 liters**
Complex 41/2005		
H = 1.7		
Top diameter = 0.9	0.95	0.855
Bottom diameter = 0.45		0.1589625
Volume		**0.783 m^3 = 783 liters**
Complex 96/2008		
H = 1.425		
Top diameter = 0.7	0.9	0.63
Bottom diameter = 0.7		0.38465
Volume		**0.716 m^3 = 716 liters**
Complex 71/2007		
H = 1.7		
Top diameter = 0.7	0.75	0.525
Bottom diameter = 0.7		0.38465
Volume		**0.770 m^3 = 770 liters**

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SOME DATA ON LIVESTOCK AND HUNTING IN THE BRONZE AGE SETTLEMENT (COSTIŞA CULTURE) AT COSTIŞA (NEAMȚ COUNTY)

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Key-words: Middle Bronze Age, Costişa culture, animal bones, processed bones, hunting.

Abstract: During 2001-2008 campaigns 71 animal bones were collected from plateau A and 91 on plateau B, in the site Costişa, belonging to the Middle Bronze Age. Unfortunately, we do not pass any information about fauna from settlements of a Costişa-type. This was a decisive reason to put into scientific circulation, such a small sample. Cattle predominate, followed by pig, caprinae, horse and dog in the first location. The game had a significant participation in the diet (Tables 1, 2). On the plateau B, one keeps the same order of species, but other frequencies (Tables 6, 8). Bone distribution according to body parts show more teeth and small elements in both locations (Tables 3, 4, 7). In case of cattle, the age profiles suggest 55.5% of specimens slaughtered for beef and 44.5% for by-products (haulage, dairy products) (Table 7). Small ruminants exploitation was mainly focused on dairy products, wool and meat subsidiary. The few metric assessments did not provide consistent data about the size and conformation of animals identified.

Cuvinte-cheie: Bronz mijlociu, cultura Costişa, oase de animale, oase prelucrate, vânătoare.

Rezumat: Prin cercetările dintre anii 2001-2008 s-au recoltat 71 de oase de animale de pe platoul A şi 91 de pe platoul B, din staţiunea Costişa (aparţinând bronzului mijlociu, cultura Costişa). Întrucât nu există, până în prezent date despre situri Costişa din regiunile noastre am considerat necesară prezentarea acestor loturi faunistice mici. Pe platoul A, predomină vitele, urmate de porc, ovicaprine, cal (5%) şi câine. Speciile vânate au o participare importantă în alimentaţie (Tabele 1, 2). Pe platoul B se păstrează aceeaşi ordine a speciilor, evident cu alte frecvenţe (Tabele 6, 8). Distribuţia oaselor pe regiuni corporale evidenţiază în ambele locaţii dentiţie şi elemente osoase mici (Tabele 3, 4, 7). În privinţa estimărilor vârstelor de tăiere, în cazul vitei se constată un procent de 55,5% sacrificări pentru carne şi 44,5% pentru produse secundare (Tabel 8). În cazul ovicaprinelor, exploatarea viza în principal lâna, lactatele şi subsidiar carnea. Puţinele dimensionări nu au oferit date substanţiale despre talia şi conformaţia corporală a animalelor identificate.

Costişa village lies towards the south-eastern limit of the Neamţ County, in Cracău-Bistriţa Depression (Moldavian Subcarpathians), medium altitudes, with terraces and alluvial plains dominate the landscape, deciduous forests, especially sessile and oak grew over them. A meadow vegetation developed along the floodplain of the Bistriţa River. Secondary meadows and farmlands replaced most of these forests, cut off over time[1]. The site is located on the eastern edge of the village Costişa; it occupies both an ellipsoidal shelf of a promontory, named "Cetăţuia" (plateau A) and the saddle that connects it to the high terrace of the Bistriţa River (plateau B). The west, south and east sides of the headland are steep and the northern slope leading down to the saddle is smoother. Archaeological research focused on examining the structure of the deposits from the Middle Bronze Age, on the plateau A, during 1959-1960, 1962 and 2001-2007' campaigns. Two contemporary communities of the Middle Bronze Age, belonging to Costişa and Monteoru cultures occupied the plateau at a time[2]. Although there are only 160 wastes, we think is necessary their publication, doubly so as there is little information about fauna from that epoch. The

[1] Collective 1982, 609-615.

[2] Popescu 2003-2005, 319.

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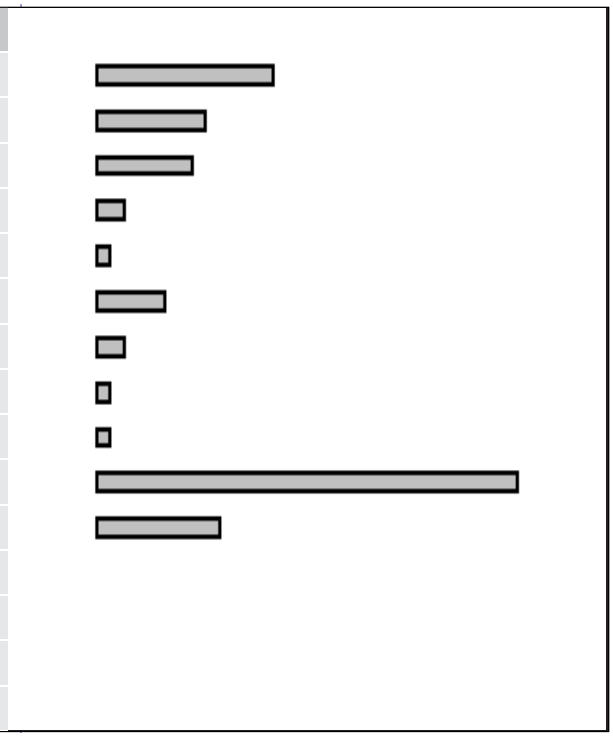
Costişa filler consists in agglomerations of adobe with pole prints originating in the wooden surface constructions (Table 1). Thirteen hearths, fragmentary or complete pots and animal bones also found. One suggested that the fireplaces are part of complex structures, possibly dwellings, judging by adobe agglomerations *in situ*[3]. 78 remnants of which 40 bones were accurately determined, have been brought to light on the plateau A. They belong to the six domestic species, widespread in the Bronze Age sites, namely cattle, pig, sheep, goat, horse, dog and four wild mammals: red deer, wild boar, roe deer and beaver (Tables 1, 2, Fig. 1). A rest comes from a turtle.

Most part of the bones from the 2003 campaign were collected "under the two Monteoru hearths with Costişa pottery, pieces of adobe, spread

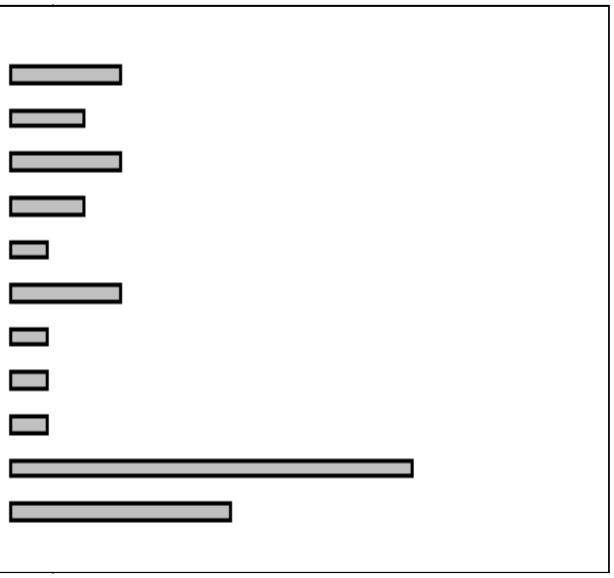
Tabel 1 – Species frequencies on the plateau A (NISP).

Taxon	NISP	%
Bos taurus	13	32.5
Sus domesticus	8	20
Ovis/Capra	7	17.5
Equus caballus	2	5
Canis familiaris	1	2.5
Cervus elaphus	5	12.5
Sus ferrus	2	5
Castor fiber	1	2.5
Capreolus c.	1	2.5
Total domestics	31	77.5
Total wilds	9	22.5
Splinters	37	
Mammals	77	
Reptiles	1	
Sample	78	



Tabel 2 – Species frequencies of sample from the plateau A (MNI).

Taxon	MNI	%
Bos taurus	3	17.65
Sus domesticus	2	11.8
Ovis/Capra	3	17.65
Equus caballus	2	11.8
Canis familiaris	1	5.88
Cervus elaphus	3	17.65
Sus ferrus	1	5.88
Castor fiber	1	5.88
Capreolus c.	1	5.88
Total domestics	11	64.7
Total wilds	6	35.3
Total	17	100



[3] Popescu, Băjenaru 2008, 5-17.

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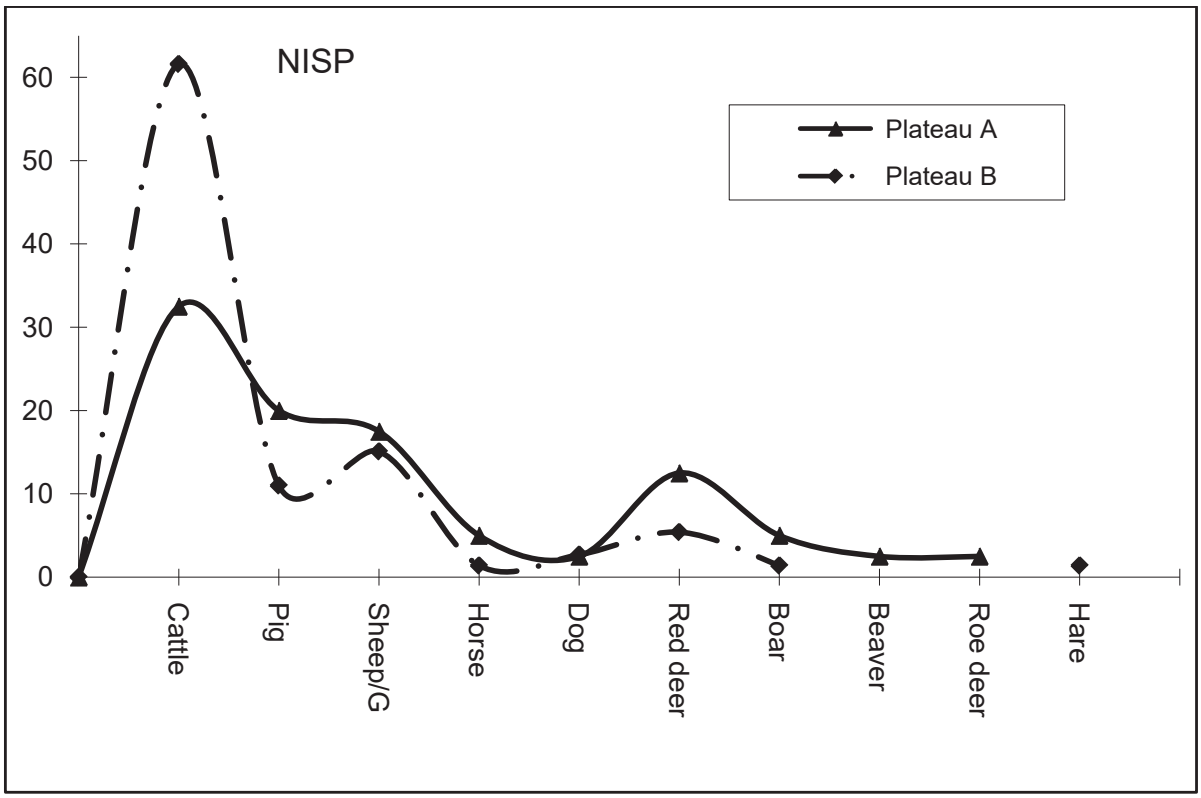

Fig. 1 – Species frequencies (as NISP) in Costişa layer.

Table 3 – Species distribution in different contexts from the plateau A.

Context	Cattle	Pig	Sheep-goat	Horse	Dog	Red deer	Roe deer	Boar	Beaver	Turtle-	Splinters	NISP
S2/C1d/2002	1											**1**
S3/C1-9a-b/ 2003/0.33-0.49 m/ beneath stone layer	5	3	5	1	1	2			1	1	14	**33**
S3/C8-9d/2003/0.55 m/beneath hearth no 5						1		2				**3**
S3/C1-8d-e/2003/ 0.31-0.56 m/beneath stone layer	1	4	2	1		2	1					**11**
S3/C1c/ 2003/0.57 m/dismantling Costişa layer	3	1									23	**27**
S2/C14f/ 2005/0.56 m/beneath stones	3											**3**
Total	**13**	**8**	**7**	**2**	**1**	**5**	**1**	**2**	**1**	**1**	**37**	**78**

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Table 4 – Body parts distribution.

	Cattle	Sheep/goat	Pig	Horse	Dog	Red deer	Boar	Roe deer	Beaver	Hare	Total	%
PLATEAU A												
Head	2	3	3	1	1	2	1		1		14	35
Column	3	2	3	1							9	22.5
Upper forelimb	3		2				1				6	15
Lower forelimb	3	1				1					5	12.5
Lower hind limb	2	1				2		1			6	15
PLATEAU B												
Head	13	6	3	1	1						24	32.9
Column	3		2			1					6	8.2
Upper forelimb	8		3			1	1				13	17.8
Upper hind limb	5				1					1	7	9.6
Lower forelimb	5	2									7	9.6
Lower hind limb	8	3				2					13	17.8
Feet	3										3	4.1

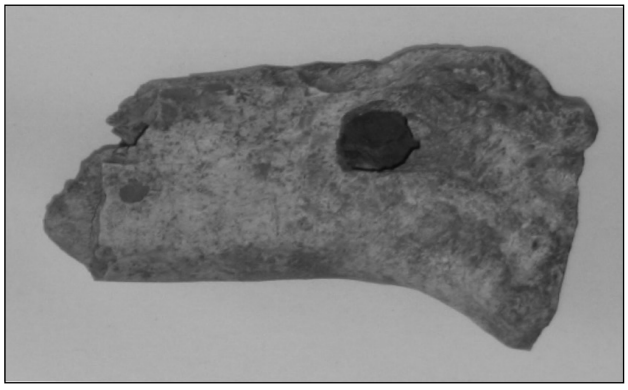

Fig. 2 – Cattle radius with perforation.

almost over the area of the trench, S2"[4]. Except for two remnants from wild boar (mandibular condyle, shoulder-blade edge) and a distal tibia from red deer under the hearth no. 5, the rest of the material comes under the stones (Table 3). About half of the sample, 37 fragments refer to indeterminate bones from small bodied-animals (sheep / pig) and a third from dentition. Distribution according body parts (skull, column, upper parts of the limbs, lower parts of the limbs, feet) engendered the succeeding results (Table 4). The elements originating in skull in all species prevail; as well, there are many isolated teeth and cracked ribs. So, the less meaty or meatless parts of the body prevail in both cases. To note that, there are no bones from feet, this raises the question whether the slaughter of animals or the butchering of carcasses was accomplished elsewhere. Probably many wastes were thrown elsewhere some of them reaching the plateau B. No pieces with gnawing or cut marks emphasized, only a few bones with burning spots. The reduced sample originates in 17 individuals, most of them young and sub-adult specimens.

Thirteen bones representing 32.5% belong to cattle. The material suggests at least one juvenile killed at 16-18 months (sometime in the summer), an adult (over 3.5-4 years) and a specimen exceeding one year. From the trench-S2/ C1d collected a complete radius, 243 mm in length, estimating a height of 104.5 cm at the withers; it is most likely a female, given the shaft index- 14.8. The bone has the distal suture just fused, so that, the individual did not reach more than 42-48 months. The piece was perforated anterior-posterior above the distal in addition, proximal edges with grinding on the front side. More than likely, the bone was not completely processed. A cattle radius with the proximal end perforated on the front unearthed in the same context (Fig. 2). Perhaps, the same item was targeted. Such skates have been identified in the Middle Bronze Age settlement at Százhalombatta-Földvár, Hungary[5]. The few metric assessments suggest low and medium specimens, not very robust. The wither height is a little higher for cattle from the Monteoru habitation, in the same area. For example, a metacarpal from a cow estimated a stature of 116.4 cm.

[4] Vulpe *et alii* 2004, 108.

[5] Choyke, Bartosiewicz 2005, 319, fig. 5.

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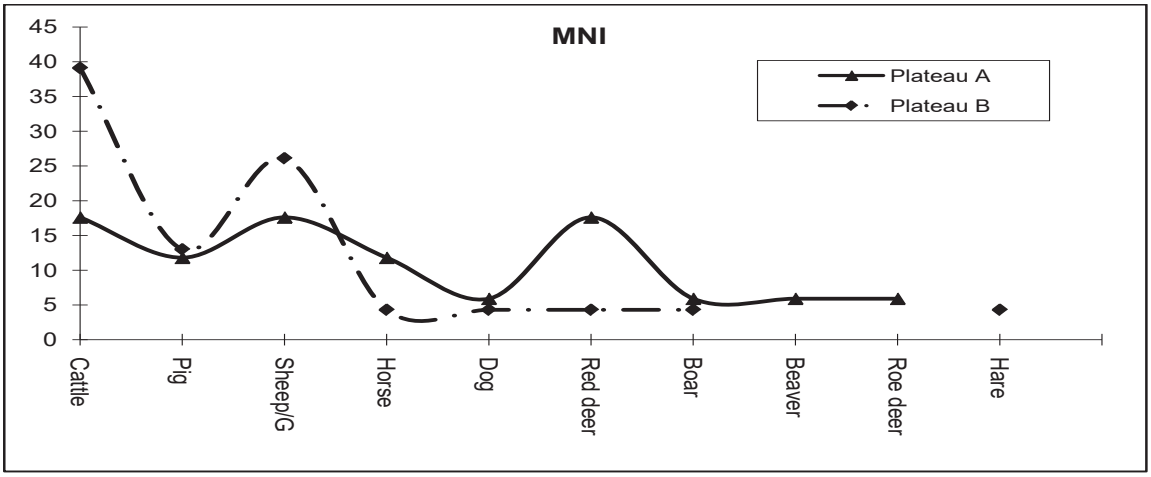

Fig. 3 – Species frequencies (as MNI) in Costişa layer.

Eight pig fragments collected below the second stones row**;** they suggest an individual slaughtered in 7 months (M1 just erupted) and another 14-16 months old (P2-4 just erupted). Seven bones come from ovicaprids**.** They belong to three specimens, slaughtered in 21 months, 4-5 years and under 24 months. From the trench- S3 / C6b / -0.46 meters collected a metapodial, turned into a pusher. A vertebra and a much worn molar come from two horses, judging from different depths where they came from. One of them is a late mature specimen. Certainly, the horsemeat seldom consumed, as with the Monteoru community. With respect to the stature of the horse from the Costişa habitation, no consistent information exists. To remember the two horses deposited in tumulus from Ripiceni (Botoşani county) (analogies with the Komarów culture)[6], with heights at the withers of 136.3 cm and 139.3 cm (K)[7]. It is likely that there were neither robust nor taller horses in our settlement. From an adult dog preserved a part of mandible with length of M1-22 mm. Of the eight bones of wild mammals, five come from red deer (12.5%), two from wild boar (5%), two from roe deer and beaver (2.5%). A distal tibia from red deer harvested under the hearth no. 5, other four bones below the second row of stones. Another distal tibia, from a quite robust red deer, with Bd/Dd – 60.5 / 43.5 mm identified. The material belongs to an immature specimen and two adults. Below the hearth V5, there are two remnants of wild boar, namely a distal scapula and mandible condyle. A proximal tibia from roe deer and a jawbone fragment from beaver belong to hunted mammals. An inset fragment of tortoise and 37 indeterminable splinters complete the sample of the level.

Researches on the plateau B emphasized the richness and complexity of Costişa structure compared to the plateau A[8]. The sample from that point is small, including 91 wastes, of which 73 are definable and 18 insignificant fragments (Fig. 3). Elements of the skull also prevail (about 33%); the proximal segments of the front limbs (fleshy part) and distal segments of rear limbs are also frequent, totaling 17.8 %. Obviously, given the reduced sample, these results do not mean too much. Of note, the important share of the jaw remainders (Table 4). The sample gathered during several campaigns, as it follows: the 2005' excavation campaign provided only eight bones, unearthed in the pit- Gr. 1; it is of round shape, 1.30 meters in diameter, containing besides animal bones, loads of adobe and pottery of Costişa type[9]. Its filler contained four bones from a sheep 3-4 years old; a talus with LL/ LM/ BD- 62.5/ 58/ 39.5 mm, a rib and a scapula assigned to a red deer. A small splinter was not specifically determined. The 2006 campaign provided thirty animal bones, spread in two trenches, S7 and S8. In interesting structure, noted by Cpl. 1/2006 identified within S7. It consists of large fragments of collapsed walls on the ground, over which several Costişa vessels were broken. The vessels were covered by pieces of clay, over them vessels of the same type were broken. Above them were settled some stones, from place to place. Its filling were containing eleven bones from one cattle (32 months old, killed probably in the autumn) and two sheep, one of which 12-16 months old (killed in the spring). A proximal metacarpus from goat, with reddish pigmentation collected nearby the hearth (V 16). In the trench-S 8 was dug the northern part of a complex, consisting of adobe, ceramics and

[6] El Susi, Burtănescu, 2000, 258.
[7] El Susi, Burtănescu, 2000, 259.
[8] Vulpe *et alii* 2007, 136.
[9] Vulpe *et alii* 2006, 140.

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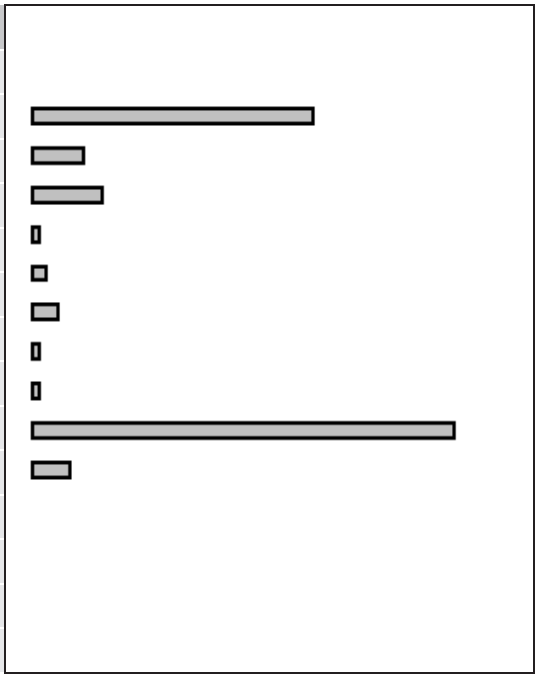
Table 5 – Species distribution in different contexts of the Costişa layer, plateau B.

Context	Structure	Cattle	Pig	Sheep-goat	Horse	Dog	Red deer	Boar	Hare	Unspecified	NISP
S6/C4-5/b-c/ 0.26-0.30 m/2005	Pit 1			4			3			1	8
S7/C5b/ 0,35-0,40 m/2006	Complex 1	4		2			1			4	11
S7/C2c/ 0.61 m/2006	Nearby the hearth no. 16			1							1
S8/C2-4, 9b-c/ 0.28-0.39 m/2006		14	4	2						1	21
S14/C3c/ 0.24 m/2007	Nearby the hearth no 19	1									1
S14/C1-3 b-d/0.19-0.31 m/2007		18	4	1	1	2		1	1	13	41
S16/C1d/ 0.33 m/2008		7		1							8
Total		**44**	**8**	**11**	**1**	**2**	**5**	**1**	**1**	**19**	**91**

Table 6 – Species frequencies on the plateau B sample (NISP).

Taxon	NISP	%
Bos taurus	45	61.64
Sus domesticus	8	10.96
Ovis/Capra	11	15.07
Equus caballus	1	1.37
Canis familiaris	2	2.74
Cervus elaphus	4	5.4
Sus ferrus	1	1.37
Lepus europaeus	1	1.37
Total domestics	67	91.78
Total wilds	6	8.22
Total determined	73	100
Splinters	18	
Mammals	91	
TOTAL SAMPLE	91	



animal remainders. As animal bones, we identified twenty-one remains of seven animals: two cattle, two pigs and two sheep. Cattle slaughtered at 16-18 months (in the warm season) and over 3-4 years, two pigs at 10-12 months and 16-18 months and sheep between 4-6 years and over six years. A splinter was not determined (Table 5). Excavations during the 2007 campaign provided about (42) bones.

At a hearth crust (V19), partially covered by a broken vessel, oriented with the mouth down preserved at a depth of 0.18 meters. In its vicinity a fragmentary scapula from cattle was found. By removing the stones overhead the hearth, a broken bowl of Costişa type was found and nearby, agglomerations of ceramic broken on the spot, overlaying[10]. From that context, at 18-30 cm depth, 41 bones from at least eight individuals determined. Eighteen bones originate in different body parts of two cattle, slaughtered at 24-28 months and 4-5 years; to a pig 17-21 months old belong to a humerus, a rib and a tooth (M3 in eruption), from a sheep 4-6 years old belong to a

[10] Vulpe *et alii* 2008, 115.

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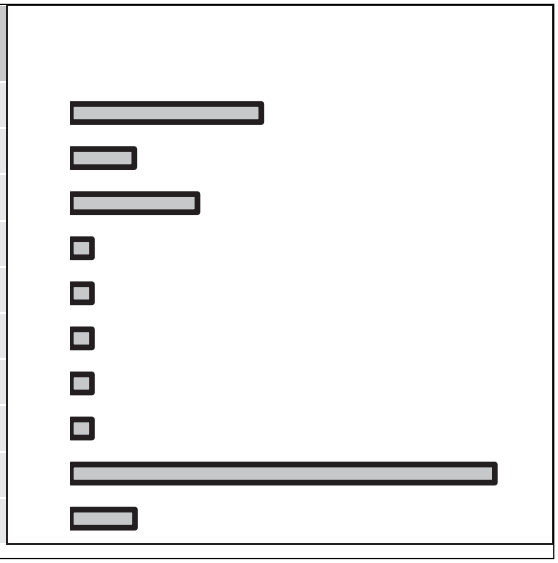
Table 7 – Cattle age profiles on the plateau B.

Year	Context	Depth	Piece	Side	Element	Age (months)
2006	S8/C3c	0.31 m	M^2	l	Eruption	16-18
2006	S7/C5b	0.28 m	M^3	l	Unworn	30-32
2006	S8/	0.44 m	P_2-M_3		Erupted	36+
2007	S14/C1d	0.20 m	M^3	l	Eruption	24-28
2007	S14/C2c	0.19 m	M^2	r	Erupted	36+
2007	S14/C3a	0.15 m	M^2	r	Erupted	36+
2007	S14/C1d	0.18 m	P^2+P^3		Erupted	48+
2008	S16/C1d	0.33 m	M^2	r	Eruption	16-18

Table 8 – Species frequencies on the plateau B sample (MNI).

Taxon	MNI	%
Bos taurus	9	39.12
Sus domesticus	3	13.04
Ovis/Capra	6	26.08
Equus caballus	1	4.35
Canis familiaris	1	4.35
Cervus elaphus	1	4.35
Sus ferrus	1	4.35
Lepus europaeus	1	4.35
Total domestics	**20**	**86.94**
Total wilds	**3**	**13.06**



mandible with M3 in erosion-g[11]. To a small-stature dog a half left mandible and a right distal femur assigned. A broken tooth derives from horse. An acetabulum from hare and a distal humerus (Bd/ Dd- 55/ 53.5 mm) from wild boar complete the sample (Table 10). Thirteen shafts were not determined; two of them are calcined and come from a small specimen. Eight remainders provided by 2008' campaign, seven of them from a cow culled in 18-24 months (Ph 1 proximal not fused) and mature (M1/ M2-worn, stage-k). To sheep of 18-24 months old belongs a metacarpal, distal just fused. Overall cattle sum up 45 fragments meaning 61.6% as NISP (Table 6) and 39.13% as MNI (Table 8). According to dentition, seven individuals presumed (Table 7); they were killed in 16-18 months, 24-28 months, 32 months and over three years (four specimens). In relation to timing of fusion, two individuals in 18-24 months and another of 2-3 years old were presumed. Overall, from nine specimens 55.5% are young and sub-adult, slaughtered for beef and 44.5% mature, for by-products (haulage, dairy products). The few metric assessments suggest weaker individuals, perhaps cows. The small ruminants rank the second by 11 fragments, accounting for 15.1% as NISP and 26.09% as MNI. The sample originates in a goat and five sheep, slaughtered over 3-4 years (Table 9). Largely the bones of juvenile and sub-adult specimens do not exceed one-third, prevailing those that reached the adulthood. Definitely their exploitation was mainly focused on dairy products, wool and meat subsidiary. The pig quotes by 11% as NISP and 13.04% as MNI. The material derives from at least one specimen of 10-12 months, another of 16-18 months and the third of 17-21 months. An eroded upper molar with roots cut off assigned to a horse;

[11] Grant 1982, 92.

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Table 9 – Sheep / goat age profiles on the plateau B.

Context	Depth	Side	Mandible			Age
			M1	M2	M3	
S6/C4a/Pit 1	0.26-0.30 m	Right			f	3- 4 years
S8/C3g	0.31 m	Left			j	> 4 years
S8/	0.44 m	Right			h	> 4 years
S7/C3c/Cpl. 1	0.55 m	Right	e	b		12-16 months
S14/C1c	0,31 m	Right			g	> 4 years

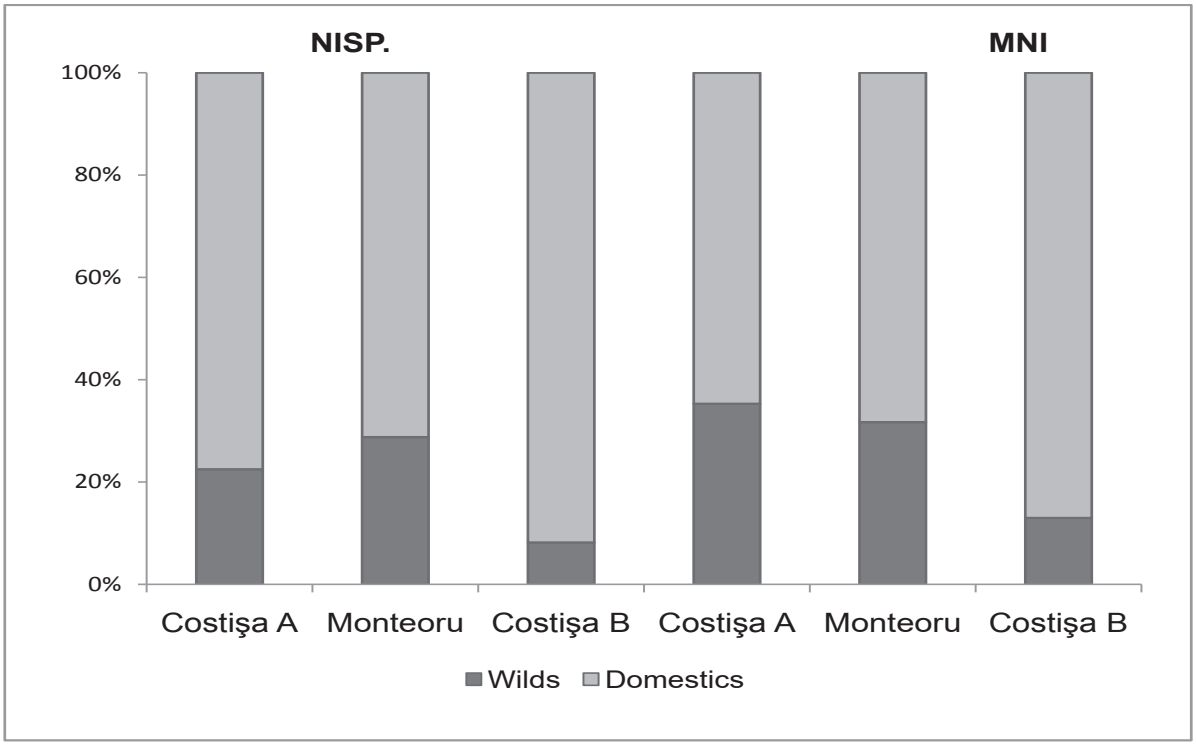

Fig. 4 – Domestic / wild ratio in Monteoru and Costişa habitations.

a broken jaw and a distal femur belong to a dog; both pieces come from a small-medium sized specimen. The wild species have a modest participation in the sample; they represent about 8.2% as NISP and 13.04 % as individuals. Among them, red deer ranks the first with 4-5%, followed by wild boar and hare, each other with 1.4% as NISP and 4.35% as MNI. Despite the small samples, a parallel between the data from both locations (plateaus A, B) allows the following clarifications. Some differences between species frequencies in the two areas registered, as it follows. The predominance of cattle bones by 61.6% on the plateau B versus 32.5% on the plateau A; in compensation, the pig reaches 20% on the plateau A, against 11% in the other point. The rate of small ruminants slightly varies in between them. Because the both samples count below 100 fragments, we do not attribute any meaning to these fluctuations. There are also discrepancies related to hunting, so 8.2% is the rate of the plateau B versus 22.5% on the plateau A. The disparity is prominent mainly as MNI, namely 35.3 / 13%. The rapport between bones from large-bodied and small-bodied specimens' highlights a slight increase in the first class on the plateau B. In fact, the remainders of cattle dominate in that location. To be a coincidence or some bones could have discarded from the plateau A. Discrepancies between samples are irrelevant when it comes to age profiles. In the researchers' opinion, it is possible that the Costişa community set on "*Cetăţuia*" before Monteoru community"[12]. It could have been a seasonal dwelling as the slaughter profiles, do not cover all year round, only the warm season. It is a simple observation based on reducing assemblages and insufficient data.

[12] Popescu, Băjenaru 2008, 5.

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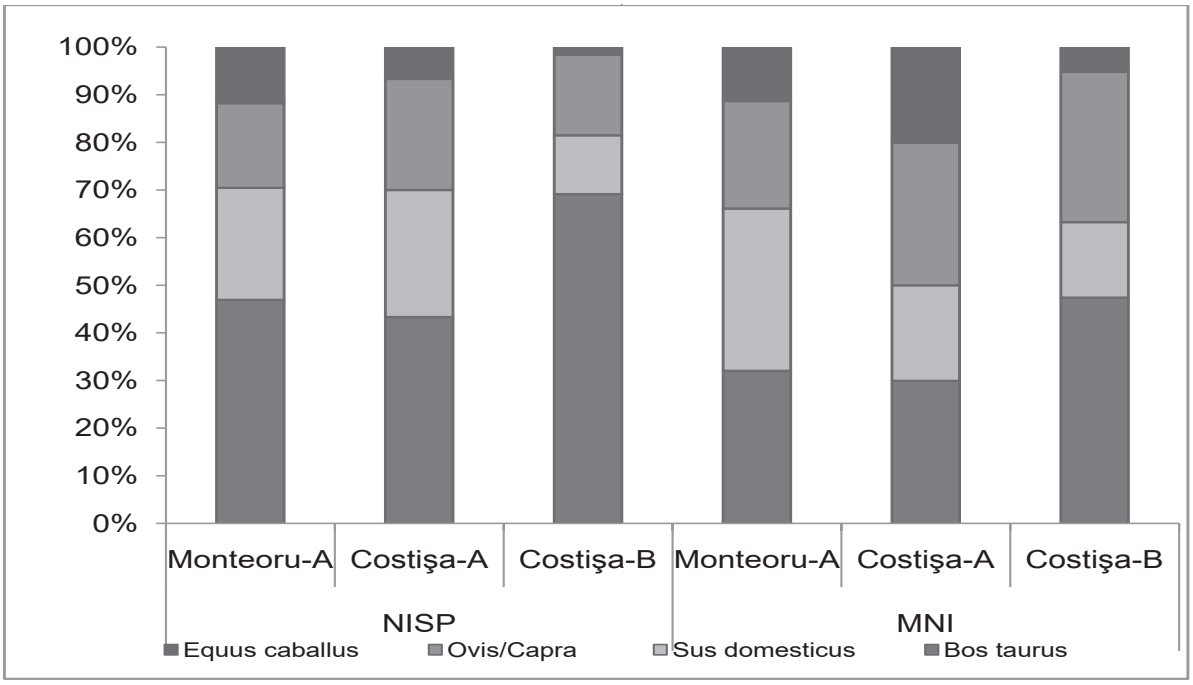

Fig. 5 – Domestic mammals' rate in Monteoru and Costişa habitations.

Table 10 – Metric data.

Mandibula	**Radius**	**Bos taurus**			
M3	GL	BFp	Bp	Dp	Bd
29	243				61.5
38,5		70,5	75,5	36,5	
Metacarpus-Bos taurus					**Talus**
Bp	Dp	Bd	Dd		GLl
49,5	29,5				56.5
		52	26		
Metacarp-Ovis		**Humerus- Sus ferrus**		**Talus-Sus dom. (* ferrus)**	
Bd	Dd	Bd	Dd	GLl	GLm
20,5	15	55*	53,5	57,5*	50.5
				42,5	38.5
Metacarp-Equus caballus			**Tibia-Cervus**		
Bd	Dd		Bd	Dd	
50	36,5		60.5	43,5	
Talus-Cervus			**Pelvis-LA**	**Lepus**	
GLl	GLm	Bd	13		
62,5	58	39,5			

Unfortunately, we do not pass any information about fauna from settlements of a Costişa-type. This was a decisive reason to put into scientific circulation, such a small sample.

Since the Monteoru communities lived in turn the same area, a parallel between them would be helpful. In terms of morphometric assessments, there are no marked disparities between mammals breed, managed by the two communities. In both cases, small or medium-sized specimens with primitive features overcome. Some similari-

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ties were found between Monteoru[13] and Costişa habitations on the plateau A, such as the rate of hunting. Specifically, the bones of wild species are about one third in the Monteoru layer, 28.8 % as NISP, and 31.7 % as MNI. Hunting is only 22.5 % as NISP and 35.3 % as MNI at Costişa (Fig. 4). Another aspect refers to cattle rate; it fluctuates around 32 % as NISP. The cattle prevalence in food and utility should not surprise. The habitat from extra-Carpathian region was propitious to cattle breed, so they prevail in almost all settlements of the Middle Bronze Age (despite culture). The cattle rate decreases at about 20.7% in Monteoru and 17.6% in Costişa according to NMI estimation (Fig. 5). Again, the large amount of teeth from small-sized animals, in both settlements biased the cattle share as NMI. Disparity arises when considering the rate of small animals, namely pigs, sheep and goats. Their intake is much higher in the Costişa sample, with at least 4-5% then the others. Since the Monteoru habitation on the plateau B provided six animal bones, any comparison is useless. We hope that the ongoing research at Costişa to supplement the fauna database with new information on this topic.

[13] I used the Monteoru samples from the plateau A, as the richest in material.

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NEUE ERWÄGUNGEN HINSICHTLICH EINES DER ŽUTO BRDO-GÂRLA MARE-KULTUR GEWIDMETEN BUCHES

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Schlüsselworte: Žuto Brdo-Gârla Mare-Kultur, Ungereimtheiten, Auslassungen, Fehler.

Zusammenfassung: Der vorhandene Aufsatz beschäftigt sich mit Monica Şandor-Chicideanu's Arbeit über die Žuto Brdo-Gârla Mare, Buch das außer den wichtigen Beiträgen zur Erkenntnis dieser kulturellen Erscheinung, auch genügend Ungeschicklichkeiten, Ungereimtheiten, Auslassungen und Fehler enthält.

Cuvinte-cheie: cultura Žuto Brdo-Gârla Mare, inadvertenţe, omisiuni, greşeli.

Rezumat: Prezenta intervenţie zăboveşte asupra lucrării Monicăi Şandor-Chicideanu despre cultura Žuto Brdo-Gârla Mare – carte care, pe lângă contribuţii importante la cunoaşterea manifestării culturale în cauză, conţine şi destule stângăcii, inadvertenţe, omisiuni şi greşeli.

Gleich nach der Veröffentlichung des Buches über Žuto Brdo-Gârla Mare-Kultur, geschrieben von Monica Șandor-Chicideanu (weiter M. Ș-C)[1], äußerte ich zu dessen Form und Inhalt einige Gedanken[2]. Im jetzigen Beitrag, da ich mich genügend eingehend mit dieser kulturellen Erscheinung beschäftigt habe und mit deren Entdeckungen, insbesondere in Südwestolteniens, vertraut bin, breite ich dem Leser weitere Stellungsnahmen vor.

Die genannte Publikation wurde mit gewisser Interesse erwartet, das unter anderen auch im Lichte der Feststellung, dass die Verfasserin, M. Ș-C, nicht sehr viele archäologische Grabungen in Fundstätten dieser Kultur durchgeführt hat. Diese Einschätzung ist von dem was im Internet, wahrscheinlich von der Autorin aufgeladen, über die Verbindung der Verfasserin mit der Žuto Brdo-Gârla Mare-Kultur vor der Erscheinung des Bandes, zu finden ist, hervorgerufen. Die Beziehung war eher zufällig und spärlich, um das Erarbeiten einer monographischen Arbeit über diese Kultur zu vollenden. Es ist eine Tatsache, dass viele Doktorarbeiten, ohne dabei sich auf genügend eigene archäologische Grabungen oder selbst entdeckte Fundorte der erforschten Kultur oder Epoche zu stützen, geschrieben werden. Anderseits ist es ganz „normal", dass M. Ș-C sich „wundert", ja sogar, jenen die solche Funde gemacht haben, vorzuwirft, dass sie nicht die Literatur hinsichtlich ihren Entdeckungen zitiert haben!

Die Autorin bezieht sich auf den S. 32-33 ihres Buches, auf die von I. (Motzoi)-Chicideanu formulierte Problematik der Bistreţ-Ișalnița-Gruppe. Zu den Eigenheiten dieser Gruppe gehört auch die mit feinen Kanneluren verzierte Keramik und die im waagerechten Profil viereckigen Gefäßformen, Charakteristisch mit der M. Ș-C einverstanden ist. Die im Jahr 1978 in Ostrovul Mare-*Colonie* entdeckte Wohnung[3], beherbergte unter anderen auch ein Fragment einer Tasse verziert mit feinen Kanne-

[1] Şandor-Chicideanu 2003.

[2] Crăciunescu 2006; Crăciunescu, Para 2007.

[3] Crăciunescu 1980.

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luren, charakteristisch der Bistreț-Işalnița-Gruppe, welche aber auch Dekor-elemente spezifisch der Gârla Mare-Kultur trug. M. Ș-C glaubt, dass das Material aus dem Haus zur klassischen Stufe der letztgenannten kulturellen Erscheinung gehört. Das würde bedeuten, dass einige der Dekorelemente, die der Bistreț-Işalnița-Gruppe eigen waren, schon in der klassischen Phase der Gârla Mare-Kultur erschienen sind?

Auf der Seite 35 des Kapitels über den Verbreitungsraums wird von M. Ș-C über die verschiedenen Stellungsnahmen hinsichtlich diesem Problem geschrieben. In einem Aufsatz, den ich vor 33 Jahren veröffentlicht habe, sagte ich[24], dass die *„im Banat durchgeführten Forschungen ein Eindringen durch den Timiș-Cerna bis in die Nähe von Caransebeș der Träger der Gârla Mare-Kultur festlegten. Die zukünftigen Forschungen müssen klären ob die Entdeckungen von Oravița und Caransebeș Einzelfunde sind oder ob die ganze Zone zwischen der Donau und der Hügellandschaft von den Trägern dieser Kultur eingenommen wurde“*. M. Ș-C hat zwar meinen Aufsatz in die Literaturliste eingetragen, hat ihn aber sehr wahrscheinlich nicht gelesen, denn sie ist fest überzeugt, dass dieses Gabriel Crăciunescu's Vermutung war. Dabei hatte ich mich klar ausgedrückt und Gheorghe Lazarovici's und Caius Săcărin's Annahme zitiert[4]. So kommt es dazu, dass im Jahr 2003 eine Vermutung aus dem Jahr 1980 blamiert wird, ohne zu erwähnen, dass heute der Sachstand geklärt wurde, und dass die so genannten Gârla Mare-Vorstoße in dem Caransebeş-Umfeld der Balta Sărată-Gruppe, während die von Oravița der letzten Stufe der Verbicioara-Kultur angehören. Zur Einschätzung der Gârla Mare-Keramik, die außerhalb des Verbreitungsraumes der Kultur entdeckt wurde, ist M. Ș-C's Stellungsnahme nach der Veröffentlichung ihres Buches zu erwähnen. M Ș-C schreibt 2005[5], dass sie nicht mit der Zuordnung zur Verbicioara-Kultur zweier Urnen des Gârla Mare-Typs, welche in der Höhle von Godeanu in der Berglandschaft des Bezirks Mehedinți entdeckt wurden, einverstanden ist. Das würde bedeuten, dass die Autorin das Verbreitungsgebiet der Gârla Mare-Kultur bis in Bergzone ausdehnt.

Im Kapitel *Geographischer Rahmen* wird bündig das Relief, Gewässernetz und die Eigenschaften des Donau-Tals besprochen. Leider wird nichts über das Klima jener Zeit erwähnt[6] und das trotz der Daten über die Pflanzen- und Tierwelt, die durch die archäologischen Grabungen erworben wurden. Für den Erdboden greift sie zur physische Erdkunde. Und das, obwohl sie anderen Autoren eben diese Handlungsweise vorwirft. Hinsichtlich den Bodenschätzen verwendet sie Arbeiten aus dem Feld der Mineralogie und weist auf eine Reihe von Erzen die Kupfer enthalten hin. Gemäß diesen, hätten die bronzezeitlichen Menschen die Möglichkeit gehabt haben, Kupfer zu erwerben. Dabei vergießt sie, dass erst die modernen Verfahren diese Tätigkeit möglich machen. Viel nützlicher wären es gewesen in den Arbeiten von B. Dimitrjevici, A. Vulpe und B. Nikolov nachzuschlagen, um mehr über die Orte wo Kupfer auch in der Bronzezeit gefördert wurde, zu erfahren. Es erweckt den Eindruck, dass diese Arbeiten nicht (eingehend ?) gelesen wurden, obwohl sie in der Literaturliste zu finden sind. Oder wurden die Informationen nur oberflächlich wahrgenommen, genauso wie im Falle der Žuto Brdo-Gârla Mare-Wohnung von Izvoarele. Die Autorin schreibt über diese, dass es keine Daten zu den Ausmaßen dieser gibt, obwohl ich genügend Informationen, Dimensionen eingeschlossen, zu diesem Bau dem Leser vorgelegt habe[7].

Ein weiterer Nachteil des Buches ist, dass M. Ș-C keine (oder nur wenige) Daten über die Materialien, die in den verschiedenen Museen aufbewahrt werden, erworben hat. Hätte sie das getan, so hätte sie mehrere Informationen, Details oder sogar Zeichnungen und Fotos über publizierte oder unveröffentlichte Materialien erhalten. Für das *Museum der Region des Eisernen Tores*, in welchem ein reiches Gârla Mare-Material sich in den Depots befindet, gab es ihrerseits kein Ersuchen. M. Ș-C kritisiert Dumitru Berciu für die Art in der er die Nekropole Ostrovul Mare-*Bivolării* publiziert hat. Es wird die Qualität der Photographien in Frage gestellt, aber anderseits ist sie mit den von Berciu festgelegten Gefäßformen, ihre Anzahl und mit der kulturellen Zuordnung einiger Metallgegenstände, die nicht abgebildet worden sind, einverstanden. Wahrscheinlich hat sie nicht Berciu's *Catalogul muzeului arheologic din Turnu-Severin* gelesen. Hätte sie das nötige Interesse gehabt, so hätte sie ohne Hindernisse alle Informationen über diese Materialien aus dem Museum erhalten. Ich, als Archäologe dieser Institution, hätte ihr alle diese Informationen gegeben. Ich erinnere M. Ș-C daran, dass vor mehreren Jahren ihr Mann, Ion Chicideanu, mir Informationen über und Zeichnungen von 12 anthropomorphen Idolen aus Ostrovul Mare-*Colonie* verlangt hat. Ich habe sie ihm selbstverständlich geschickt, so dass er sie zusammen

[4] Siehe Crăciunescu 1980, Anm. 24; Lazarovici, Săcărin, 1979, 82.

[5] Șandor-Chicideanu 2005.

[6] Drăgan, Airinei 1993; Damian 2000.

[7] Crăciunescu 1992, 43-47.

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mit Monica Șandor-Chicideanu veröffentlichen konnte. Dieser Mangel an Interesse, hat eine falsche Angabe der Anzahl der Gefäße von *Bivolării* und das Ziehen von teilweise irrtümlichen Schlussfolgerungen zur Folge. Dieses ist der Fall der Urnen, aber desgleichen auch weiteren Gefäßen, über die ich nicht seit langer Zeit, in der Hoffnung, dass M. Ș-C Statistik und die Schlussfolgerung ausgebessert werden können, geschrieben habe[8]. Es ist eine Erklärungen nötig: in *Bivolării* wurden sechs Gefäßständer entdeckt[9]. Die Autorin lässt diese Gefäßkategorie in Ostrovul Mare, wie auch für die ganze Zone östlich dem Eisernen-Tor, mit der Ausnahme des Fundes von Korbovo-*Glamija*, außer acht.

Ein weiteres Problem des Buches, ist die Art wie einge Arbeiten zitiert werden. Zum Beispiel *Caius* Săcărin, Teză de doctorat. Erstens wird der Titel der Dissertation nicht erwähnt. Diese beschäftigt sich ebenfalls Žuto Brdo-Gârla Mare-Kultur. Zweitens hat Caius Săcărin seine Doktorarbeit nicht öffentlich verteidigt, er wurde nicht promoviert, so dass diese keine legal anerkannte wissenschaftliche Arbeit ist. M. Ș-C Zitierung hat deswegen keine rechtmäßige Unterlage. Diese Tatsache erhebt die Frage der Korrektheit des Zuganges zu den Informationen einer Arbeit, die nicht öffentlich ist. Nicht nur, dass tief in diese Arbeit hineingegriffen wird, Săcărin wird auch noch für seinen Text und die Tafeln kritisiert! Durch die Vorführung der Arbeit in einer anderen Form und mit anderen Schlussfolgerungen, als die des Verfassers, erhebt sich die Frage, was von M. Ș-C wiederholten Zitierungen und Kritiken übriggeblieben ist?

Die Informationslücken und Unernstheit führt M. Ș-C dazu, sich zu verwirren oder sogar Deckeltypen auszulassen, Kategorien die sie selbst entworfen hat. Auf der S. 82 erwähnt sie in der Nekropole von Gruia einen Deckel des Typs X1, dabei handelt es sich um einen Deckel des Typs X3, das nach ihrer Klassifizierung. Diese Handelsweise hat eine Unklarheit und –Korrektheit der Statistiken zur Folge: ein Deckel des Typs X1 aus der Wohnung von Izvoarele[10] und ein zweiter Deckel desgleichen von hier[11], welcher nicht aufgelistet wurde, genauso wie des Gegenstück von Ostrovul Mare *Bivolării*[12], wurden außer acht gelassen. Sehr wahrscheinlich hätte sie eine größere Anzahl von Deckeltypen erkennen können, wenn sie die Funde aus den verschiedenen Grabungsorten selbst studiert hätte oder mit eingehender Interesse das gelesen hätte was publiziert wurde.

Den Zwillinggefäßen schenkt sie fast keine Aufmerksamkeit. Sie greift nur das auf, was ihr passt. Es werden nicht die drei Gefäße, Teile von Inventaren der von der Donau ausgewaschenen Gräbern, die durch einen Zufallsfund der Schüler aus dem Dorf, in Gruia entdeckt wurden, berücksichtigt[13]. Auf S. 85 werden wir benachrichtigt, dass die Zwillinggefäße in der westlichen Zone der Žuto Brdo-Gârla Mare-Kultur, d.h. das stromaufwärts vom Eisernen Tor gelegene Gebiet, nicht bekannt waren, und das diese Gefäßform sehr wahrscheinlich die gleichen der Vatina-Kultur nachahmten. Wie erfahren also, dass diese Vatina-Kultur, flussaufwärts vom Eisernen Tor befindlich, nur die Gârla Mare-Töpfer stromabwärts vom Eisernen in der Herstellung der Zwillinggefäße beeinflusste. Die Keramisten flussaufwärts des Eisernen Tores, die zu nahe am Vatina-Verbreitungsgebiet zu finden waren, haben sich in der Ausarbeitung dieser Gefäßgattung nicht beeinflusst lassen!

Auch die Gefäße des Typs Pyraunos wurden desgleichen unklar verzeichnet und vorgestellt, genauso wie es mit den Materialien dieser Kultur, ob alte oder neue Funde, aus dem südöstlichen Teil Olteniens passiert. Von Ostrovul Mare-*Bivolării* erwähnt M. Ș-C nur ein Gefäß des Typs Pyraunos, dabei veröffentlichte Dumitru Berciu das Bild eines weiteren mit einer sehr interessanten Form[14]. Der Beleg der Oberflächlichkeit im Kennen der Materialien aus Südwestoltenien wird erneut durch die Tatsache, dass ihr der *Catalogul muzeului arheologic din Turnu-Severin* schwach bekannt ist, erwiesen. Außer den zwei genannten Gefäßen, die mittels Fotos dokumentiert wurden, sind zwei andere erwähnten worden, so dass dieser Typ von Gefäßen die Anzahl von vier Exemplaren erreicht[15].

Wenn die Rede über die Auftragsgefäßen kommt (S. 88), so hat M. Ș-C einige Schwierigkeiten im Erkennen der Formen, hauptsächlich wenn es sich um Fragmente handelt, da ihr ungenügend Material in die Hände gefallen ist. Gefäße dieser Art wurden in den Wohnungen von Izvoarele und Ostrovul Mare-*Colonie* entdeckt. In Izvoarele ist die Anzahl dieser genügend hoch[16], aber sie werden nicht im Buch erwähnt. Diese Gegebenheit hätte ihr, zum Beispiel, über das Verhältnis dieser Gefäßform in den Nekropolen und Siedlungen geholfen,

[8] Crăciunescu 2014, 27-33.

[9] Berciu 1953, 620.

[10] Crăciunescu 1992, Taf. 4/2.

[11] Crăciunescu 1992, Taf. 4/1.

[12] Berciu 1953, 601 und Taf. XXXVII/13.

[13] Crăciunescu 1982, Abb. 7a, 7b, 8b.

[14] Berciu 1953, Taf. XXIX/6a, 6b.

[15] Berciu 1953, 606 (Inv. I 161-I 164).

[16] Crăciunescu 1992, Taf. 3/5; 5/4.

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zu sprechen. Es wäre zu erwünschten gewesen, dass die Autorin mit größerer Berufsmäßigkeit verschiedene Arbeiten zitiert. So ist das Schachtelegefäß (dieses ist eher ein rechteckiges Gefäß) von Ostrovul Mare bei Dumitru Berciu im *Catalog...* auf Pl. XXIII/9, nicht pl. 29/2 zu finden.

Dass Siebe in den Siedlungen anzutreffen sind, ist eine klare Tatsache. Vor 33 Jahren, als ich zum ersten Mal über die Materialien aus der Wohnung von Ostrovul Mare-*Colonie* geschrieben habe, wurden Siebe nicht erwähnt, da diese nur in kleinen Bruchteilen entdeckt wurden. Ich hatte die Hoffnung, dass ich mit einer anderen Angelegenheit hinsichtlich diesen sprechen würde. Hätte mich Frau M. Ș-C darüber gefragt, so wäre es mir eine Freude gewesen ihr Informationen zu geben.

Die Autorin hat zwar nichts über den Zweck der Tonplättchen zu sagen (S. 89), aber anstatt dessen gelingt ihr ein neuer Schnitzer. In Ostrovul Mare-*Colonie* gibt es kein solches verziertes Plättchen. Das von ihr vorgestellte Stück, ist ein Deckel, so wie es aus der Erklärung der Abbildung unterstrichen wird[17]. Ihre Handlungsweise hat in diesem Falle das Versäumen eines weiteren Deckeltyps. Anderseits muss darauf hingewiesen werden, dass es Schüsseln mit ellipsenförmigen Mund, so wie die von Mișu Davidescu in der römischen Siedlung von Ostrovul Mare (Forschungen 1987-1988) gefundenen Gefäße beweisen, gibt.

„Das Verschwinden der Arme, führt zum Verschwinden der wenigen Gebärden und macht die Statuetten unbeweglich, kalt und leblos“, schreibt die Autorin auf S. 111. Mit größerer Aufmerksamkeit wäre ihr aufgefallen, dass das Idol von Ostrovul Mare-*Bivolării* eine im Tanz bückende Person darstellt[18], oder dass ein weiteres fragmentarisches Stück von Ostrovul Mare-*Colonie*, welches die Armen über dem Kopf hält, desgleichen auf eine tanzende Person hindeutet[19].

M. Ș-C machte dieselben Fehler auch als sie die Fundorte der Tonschalen erwähnt. Es werden die Gegenstände aus der Wohnung von Ostrovul Mare-*Colonie* „vergessen”. Anderseits wird eine Vogelprotome den Tonschalen zugefügt[20]!

Die Lage ist dieselbe auch im Falle der Metallgegenstände. Außer den Stücken aus der Nekropole von Gruia, gibt es, und es sei mir gestattet, Frau M. Ș-C darauf aufmerksam zu machen, ein Bronzeschwert in Ostrovul Mare[21]. Die Art und Weise wie die Gegenstände aus dem *Muzeul Regiunii Porților de Fier* von M. Ș-C behandelt werden, zeugen davon, dass erstens deren Vorhandensein an Ort und Stelle nicht geprüft wurde, ich beziehe mich auf zwei Meißeln von Ostrovul Mare (S. 142), und zweitens, dass die Autorin Dumitru Berciu's Meinung, der sie veröffentlicht und sie nur mit Wahrscheinlichkeit der Bronzezeit zugefügt hat, außer acht lässt[22]. Ich unterstreiche, dass es keine Bilder oder Zeichnungen von diesen Gegenständen gibt. Interessant ist, dass M. Ș-C, die gegen Dumitru Berciu ständig Einsprüche erhebt, auf einmal hier mit dessen Meinung einverstanden ist.

Im Rahmen der Schmuckstücke erheben für die Autoren die Anhänger keine Probleme (S. 143-145). Sie akzeptiert B. Hänsel's Typologie der Anhänger für das Karpatenbecken. Obwohl die Bronzestücke in der Žuto Brdo-Gârla Mare eher eine Seltenheit sind, wird über die fragmentarischen Anhänger von Gruia, nichts eingehender geschrieben. Hatte Frau M. Ș-C hinsichtlich diesen einige Probleme? Oder hat sie einfach vergessen, denn auf der Tafel auf der sie abgebildet sind[23], werden andere Objekte besprochen

Die Autorin befasst sich im Falle der Kenotaphen nur mit denen von Cârna-*Grindu Tomii* und Cârna-*Ostrovogania*, anderen schenkt sie keine Aufmerksamkeit. Die kleine Nekropole von Gruia, wo es auch ein Kenotaph gab, wird systematisch vergessen. Wahrscheinlich war es für die Autorin leichter die Nekropole von Cârna-*Grindu Tomii* zu zitieren, denn über diese wurde entlang der Zeit viel und oft geschrieben.

M. Ș-C, als sie über das Verhältnis der Žuto Brdo-Gârla Mare- mit der Mad'arovce-Kultur diskutiert, bezieht sie sich auch auf die Modellwagenräder und Brotleibidole. Hinsichtlich diesen letzteren, werden die drei Exemplare von Ghidici erwähnt. Schon 1980 veröffentlichte ich das ganze Objekt aus der Wohnung von Ostrovul Mare-*Colonie*. Weitere Idole wurden auch in der Nekropole *Bivolării* entdeckt[24].

Die Beziehung Žuto Brdo-Gârla Mare - Mad'arovce wird auch im Lichte der Vierfüssigenkanne von Ostrovul Corbului-*Canalul Dunărea Veche* (Alte Donau-Kanal; S. 190) analysiert. Ein solches Gefäß wurde auch im Mad'arovce-Milllieu gefunden. Ich erinnere daran, dass je eine Vierfüssigenkanne mit klassischer Gârla Mare-Verzierung auch

[17] Crăciunescu 1980, 51.

[18] Berciu 1953, Taf. XXXII/3a, 3b.

[19] Crăciunescu 1980, Abb. 16C.

[20] Crăciunescu 1980, Abb. 8b.

[21] Crăciunescu 1996, 55-58.

[22] Berciu 1953, 625.

[23] Crăciunescu, 1998, Taf. XV/18-23.

[24] Berciu 1953, 599-600 und Taf. XXXIII.

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Ostrovul Mare-*Bivolării*[25] und Ostrovul Corbului[26], beide fragmentarisch, entdeckt wurden. Solche Gefäße waren auch den Kulturen Coțofeni und Verbicioara[27] eigen, so wie die Funde aus Rogova, Bezirk Mehedinți, bezeugen.

Die Verbindung Žuto Brdo-Gârla - Vatya stützt sich auf ein sehr gewichtiges Argument (S. 192): beide Kulturen „...*haben ausschließlich die Einäscherung, gefolgt in der Regel von der Beisetzung der verbrannten Überresten in Urnen, gewöhnlich Amphoren, bevorzugt*"!

Die Autorin ist, wenn sie über die Beziehungen der Žuto Brdo-Gârla Mare- mit der Verbicioara-Kultur und der Govora-Gruppe spricht, von den üblich benützten Stereotypen total abhängig. Sie kennt nur die von Dumitru Berciu erwähnten Gräbern und vernachlässigt diejenigen welche in den Bezirken Mehedinți und Dolj, in den Nekropolen von Ostrovul Mare-*Bivolării*[28], Gruia oder Ghidici, alle seit langer Zeit publiziert, entdeckt wurden. Sie erinnert an einen Kantharos des Typs Govora im Grab 104 in Cârna, aber das Kantharosfragment, das in der Žuto Brdo-Gârla Mare-Wohnung von Izvoarele[29] entdeckt wurde, ist ihr unbekannt.

Die Autorin stellt uns Alexandru Vulpe's Meinung, dem nach die Frühbronzezeit in Rumänien mit dem Baden-Coțofeni-Block beginnt, vor. Diese Position, die das erste Mal 1979 veröffentlicht wurde, ist, erfahren wir von M. Ș-C, mit großer Feindseligkeit, hauptsächlich von Petre Roman, kritisiert worden. Frau M. Ș-C eignet sich Vulpe's Hypothese an und tadelt alle diejenigen, welche mit dieser Einstellung nicht einverstanden sind. Meines Erachtens ist es viel nützlicher, dass die chronologische Problematik von den zwei wichtigen Archäologen ohne der Hilfe ihrer Doktoranden geklärt wird....

Für die Žuto Brdo-Gârla Mare-Kultur gab es bis 2003 nur ein ^{14}C-Analyse. Anderseits, für kulturelle Erscheinungen mit denen Gârla Mare mehr oder weniger in Kontakt trat, werden zahlenmässig mehere Daten festgelegt. M. Ș-C stellt die ^{14}C-Daten der Kulturen Periam-Pecica, Vatya, Mad'arovce, Vatina u.s.w. vor und kommt zur Schlussfolgerung, dass die „*^{14}C-Daten die Idee einer früheren Datierung der Kulturen der Bronzezeit, hauptsächlich der frühen und mittleren, unterstützen*" (S. 213). Ihr nach, müsste die Gârla Mare-Kultur ab 1.650 n. Chr. beginnen und in Oltenien 1.250 n. Chr. und 1.200 n. Chr. in Bulgarien enden. „*Die Gârla Mare-Kultur wird von der Bistreț-Ișalnița-Gruppe, die ihre Evolution um 1.100 n. Chr. endete, gefolgt*" (S. 213). So wird der Bistreț-Ișalnița-Gruppe, wenigstens für Rumänien, Platz gemacht. Für einen früheren Beginn der Žuto Brdo-Gârla Mare-Kultur hätte vielleicht auch die Hülsenkopfnadel, die von Caius Săcărin la Liubcova entdeckt wurde, in Betracht gezogen werden müssen.

Die Autorin legt uns eine kurze Überschau der Stellungsnahmen der Verschiedenen Archäologen zu den Kulturgruppen Szeremle und Bijelo Brdo-Dalj (S. 11-15) - I. Bóna. G. Bándi, T. Kovács, N. Tasić, B. Hänsel, N. Majnarić-Pandžić, S. Foltiny – aus denen ersichtlich wird, dass diese schwer definierbar sind, vor. Frau M Ș-C Verdienst ist, dass sich mit großer Sicherheit die Materialien dieser Erscheinungen in der Nekropole von Liubcova identifiziert hat. Leider versteht sie nicht viel von dem Verbicioara-Phänomen, aber auch gegenüber diesem hat sie sehr klare Meinungen.

Es können einige Einschätzungen in Bezug dieser Arbeit gemacht werden. M. Ș-C kennt eigentlich wenige Žuto Brdo-Gârla Mare Materialien östlich dem Eisernen Tor und zitiert leider des öfter diese falsch. Genauso spärlich sind ihre Kenntnisse hinsichtlich den „rumänischen" Materialien westlich dem Eisernen Tor, in deren Besitz sie weniger „ehrlich" gelangt ist. Sie verwendet anderseits in Fülle die Keramik von Cârna-*Grindu Tomii,* Nekropole der bis jetzt viele Stellungsnahmen gewidmet wurden und die ihr leicht zugänglich waren. Da ihr Ion Motzoi-Chicideanu, Frau M. Ș-C's Ehemann, erlaubt hat, wurden auch die Nekropolen von Cârna-*Ostrovogania* und Plosca-*Cabana de metal* publiziert.

Obwohl nur wenige Ansiedlungen dieser Kultur erforscht wurden, trotz diesen Bedingungen werden nicht alle Daten und Informationen richtig und korrekt ausgedeutet. Es werden uns mit Genugtuung Kenntnisse über einige Materialien der Bronzezeit von dem Žuto Brdo-Gârla Mare-Verbreitungsraum weitliegender Gebieten vorgelegt, dabei aber gibt es Lücken in der Benutzung der Informationen und Materialien bezüglich kleineren Nekropolen dieser Kultur aus Rumänien. In der Abwesenheit eigener Forschungen, schrieb die Verfasserin eine Doktorarbeit, die als Grundlage hauptsächlich Arbeiten anderer Archäologen hatte, so wie es in letzten Jahren üblich wurde.

[25] Berciu 1953, 599, Taf. XXVII/5.

[26] Berciu 1953, 637.

[27] Crăciunescu 2000, Taf. XXI/1.

[28] Berciu 1953, 612 (Inv. I, 262).

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DEUX DÉCOUVERTES DATANT DES V^E – IV^E S. AV. J.-C. À L'EST DE LA VALACHIE : LA TOMBE DE RÂMNICELU (DÉP. DE BRĂILA) ET LA CHAUDIÈRE D'OGRADA (DÉP. D'IALOMIŢA)

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Mots-clé: Est de la Valachie, vestiges des V^e-IV^e s. av. J.-C., Gètes, Scythes.

Résumé: L'article porte sur deux découvertes archéologiques faites à l'est de la Valahie, une tombe de Râmnicelu (dép. de Brăila), publiée au début comme une tombe sarmatique et une chaudière de bronze du type scythique, encore inédite, provenant d'Ograda (dép. d'Ialomița). Après la présentation proprement-dite des découvertes, on fait des considérations générales sur les découvertes de la zone et la situation culturelle-archéologique à l'est de la Valahie aux VI^e-IV^e s. av. J.-C.

Cuvinte-cheie: estul Munteniei, vestigii din sec. V-IV a. Chr., geți, sciți.

Rezumat: Se prezintă două descoperiri arheologice din estul Munteniei, anume un mormânt de la Rîmnicelu (jud. Brăila), publicat inițial ca mormânt sarmatic, și un cazan de bronz de tip scitic, încă inedit, de la Ograda (jud. Ialomița). După prezentarea propriu-zisă a descoperirilor se vor face și câteva considerații de ordin general asupra descoperirilor și a situației cultural-arheologice a estului Munteniei în sec. VI-IV a. Chr.

RÂMNICELU (dép. de Brăila)

Lorsqu'il a publié les découvertes sarmatiques du département de Brăila, N. Harțuche[1] a inclus aussi dans cette catégorie la tombe no. 12 sur le tell de Râmnicelu[2]. Cette tombe a été considérée sarmatique à d'autres occasions[3].

Dans le volume portant sur les vestiges sarmatiques du département de Brăila[4], nous avons procédé à une autre analyse détaillée de toutes les découvertes tout en constatant que cette tombe appartient en fait, à une autre époque.

Tombe no. 12. Dans une fosse rectangulaire, à 0,60m de profondeur, par rapport à la surface en pente du sol, on a découvert le squelette d'un adulte déposé en décubitus dorsal, étendu, les bras le long du corps, la tête vers le nord et les jambes vers le sud[5].

[1] Harţuche 1980, 191-251.

[2] Harţuche 1980, 218, 243-244, fig. 22/10, 25/1.

[3] Harţuche, Anastasiu 1977, 229-230, no. cat. 470-471; Bichir 1977, 184-185; 1985, 169-170.

[4] Oţa, Sîrbu 2009.

[5] Harţuche 1980, 218.

Offrande

On a considéré l'existence d'une offrande de viande, vu que des os d'ovinés-caprins se trouvaient à quelque 0,30m du bras droit, y compris des côtes entre lesquelles un couteau était enfoncé.

Mobilier

Couteau de fer (L. lame = 115 mm; l. max. lame = 22 mm, L. manche = 128 mm; l. manche central = 15 mm). Musée de Brăila « Carol I » – Inv. no. – 13.314.

La lame de la pièce est droite, la pointe légèrement courbée, triangulaire en section. Le manche, rectangulaire en section, se trouvait entre deux plaques en os, plus larges vers les bouts, aux surfaces intérieures plates et les extérieures, légèrement convexes; il est assujetti dans la lame avec trois rivets de fer (Fig. 1/3a-b).

Plaquette d'or (L = 25 mm; l = 18 mm; L. anneaux = 3,5 mm; Poids = 0,97 Au) découverte au poignet de la paume droite. Musée de Brăila « Carol I » – Inv. no. – 10.555.

Pièce de forme rectangulaire en feuille mince d'or, prévue de deux petits orifices circulaires vers

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le bout plus étroit, peut-être pour y passer un fil, et quatre anneaux tubulaires au dos (dont on ne garde plus que trois), probablement pour les fixer sur un support dur (os, bois) (Fig. 1/1 a-c). Fait dans la technique *au repoussé*, le décor reproduit un lion recroquevillé vers la gauche, avec une reproduction plus réaliste de la partie inférieure, y compris les jambes et la queue, ensuite les jambes avant et la crinière; la tête et le museau sont rendus d'une manière schématique et recomposés (Fig. 1/1 a-c). La surface de petites dimensions que l'artisan a eue à sa disposition a imposé une reproduction disproportionnée et schématique du lion, néanmoins, l'animal est reconnaissable et il émane du dynamisme, ce qui est spécifique à l'art animalier scythique. La pièce a subi des endommagements, en particulier sur les bords, plus deux perforations.

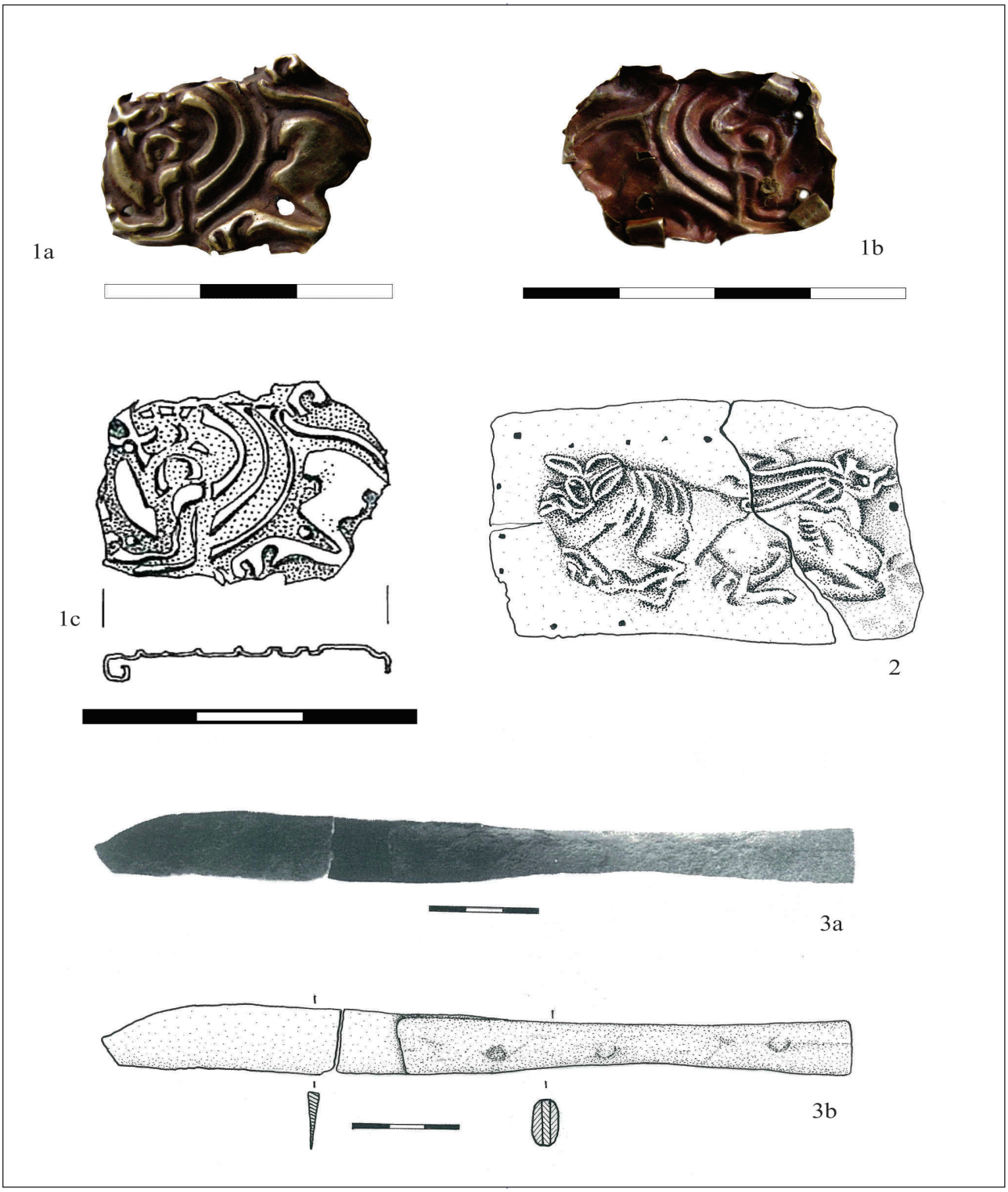

Fig. 1 – 1, 3 Rîmnicelu. 1a-c plaquette en or ; 3a-b couteau en fer (photo V. Sîrbu, dessin C. Istrate); 2 Gurbănești - 2 plaquette en or (d'après Rosetti 1959).

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Fig. 2 – 1 a-e Ograda – chaudière en bronze (photo V. Sîrbu, dessin G. Dobre).

Reposant sur le rituel et le mobilier, qui est beaucoup plus ancien, nous pouvons attribuer cette tombe aux Scythes et non pas aux Sarmates.

La présence de l'offrande de viande, y compris du couteau entre les côtes, fait partie du rituel typique aux populations scythiques ou avec des connexions dans les zones nord-pontiques. D'ailleurs, on a trouvé un couteau semblable dans une tombe de la nécropole scythique de Chiscani-CCH, toujours enfoncé dans l'offrande de viande, probablement de bovidé[6]. Il en va de même pour la Tombe 6, scythique, de Grădiștea-*Mormântul Elizei* (*Tombeau d'Élise*), d'inhumation, dont le squelette se trouvait en décubitus dorsal, orienté ouest-est, ayant des côtes et jambes de bovidé au-dessus de

[6] Harţuche, Anastasiu 1968, 52, pl. 68.

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la tête, un couteau de fer auprès de l'avant-bras droit ainsi que d'autres pièces de mobilier[7].

Les couteaux de ce type sont bien nombreux dans les tombes scythiques nord-pontiques, comme dans la tombe royale de Čertomlykoù on en a trouvé 18 exemplaires![8] Les offrandes de viande et les couteaux sont souvent rencontrés dans les tombes d'inhumation du « groupe Ciumbrud » en Transylvanie, datables aux VIe-Ve s. av. J.-C.[9].

En ce qui concerne l'orientation des défunts, dans la plupart des 18 tombes sarmatiques découvertes à Râmnicelu-*Popină*, ils avaient la tête dans la direction ouest, seulement deux, vers le nord[10], de sorte que, de ce point de vue aussi, T12 se trouvait en dehors de la « norme ».

La plaquette d'or à décor zoomorphe (cousue/attachée sur la manche ?) est une pièce typique pour l'art animalier scythique.

Dans une tombe secondaire située au sommet du tumulus 2 de Gurbănești (dép. de Prahova), on a découvert une pièce en plaquette d'or décorée *au repoussé,* ainsi que d'autres pièces d'origine nord-pontique; bien que le décor en soit différent – un cerf agenouillé, la tête vers la droite, derrière lequel se trouvait un griffon ailé, la tête vers la gauche – le type de pièce, le décor et les motifs animaliers sont similaires; la découverte se date au IVe s. av. J.-C. et est attribuée aux Scythes[11] (Fig. 1/2).

Si nous prenons en compte l'ensemble des éléments de cette découverte (rite, rituel, mobilier), nous pourrions observer que le défunt/la défunte de Râmnicelu a des analogies très rapprochées dans les tombes scythiques, y compris dans les nécropoles de Chiscani[12] et Grădiștea[13]. Toute une série de caractéristiques (inhumation, orientation majoritaire de la tête vers le nord, offrande de viande et couteau légèrement courbe) se retrouvent également dans le soi-disant « groupe Ciumbrud » de Transylvanie, datable aux VIe-Ve s. av. J.-C.[14]. Il n'est pas dans notre intention de continuer les discussions sur « l'ethnicité » du « groupe Ciumbrud » de Transylvanie, tellement controversée[15], car nous ne voulons qu'y mettre en évidence quelques-unes de ses caractéristiques communes avec cette aire culturelle.

OGRADA (dép d'Ialomița)

Dans un article portant sur quelques problèmes de l'archéologie et l'histoire de la Plaine Roumaine, notre feu collègue et ami Niculae Conovici m'a parlé de l'existence d'une chaudière de type scythique trouvée par hasard à Ograda[16], pièce pas encore publiée, aussi ai-je pris la décision de le faire maintenant[17].

Par malheur, le contexte et les conditions de la découverte sont assez peu connues[18].

La chaudière (Musée du Bas Danube Călărași, Inv. no. 14.825) est une pièce en bronze, avec beaucoup de cuivre, de capacité modeste (H = 325 mm; DB = 290 x 265 mm; DB sur la direction des anses = 270 mm; H. pied = 62 mm, D. pied = 82 mm). En dépit des nombreuses détériorations et réparations, son état est assez bon pour pouvoir en faire des observations, autant générales, que de détail (Fig. 2/1a-e). On l'avait faite en deux parties, le corps et le pied, qui ont été, par la suite, collée. Sauf une détérioration subie vers le fond, peut-être pendant la découverte, zone restaurée à présent, le corps de la chaudière est bien conservé. En échange, le pied est grandement endommagé, autant à la base, qu'en hauteur (Fig. 2/1d).

La chaudière a une forme presque globulaire, avec la bouche à peu près verticale et la lèvre épaissie, le rebord légèrement aplati vers l'intérieur (Fig. 2/1a-e). Sur la bouche, face à face, il y a deux anses massives, presque semi-circulaires (L. base = 60mm; H = 30mm, à l'extérieur; H = 20mm, à l'intérieur), presque rectangulaires en section, avec trois arêtes et une cannelure profonde, longitudinale, interrompue par l'arête du sommet (Fig. 2/1c).

Le pied est légèrement cylindrique, un peu évasé vers la base, avec un anneau en relief, horizontal, circulaire, situé à la moitié de la hauteur (Fig. 2/1d-e); le tournage est négligent, les irrégularités étant évidentes surtout à l'intérieur (Fig. 2/1d).

[7] Harţuche *et alii* 1983, 49, 52, fig. 2/2, 6/1, 3; Sîrbu 1983, 36, fig. 12/1,4.

[8] Alexeev, Murzin, Rolle 1991, 97, fig. 66.

[9] Vasiliev 1980, 52-53.

[10] Harţuche 1980, 218.

[11] Rosetti 1959, 805-807, fig. 5-6.

[12] Harţuche, Anastasiu 1968, 52, pl. 68.

[13] Harţuche *et alii* 1983, 49, 52, fig. 2/2, 6/1, 3; Sîrbu 1983, 36, fig. 12/1, 4.

[14] Vasiliev 1980.

[15] Vasiliev 1980, 134-140; Vulpe 2012, 27-66.

[16] Sîrbu 1985, 15.

[17] Je remercie mon collègue Marian Neagu pour m'avoir permis de publier la chaudière, messieurs Valentin Parnic et Vasile Oprea, pour m'avoir aidé à son étude et Madame Gabriela Dobre, pour avoir dessiné la pièce.

[18] Conformément aux informations arrivées chez N. Conovici, la chaudière aurait été récupérée dans le grenier de l'école de Bucu, sans que nous sachions comment elle y est arrivée.

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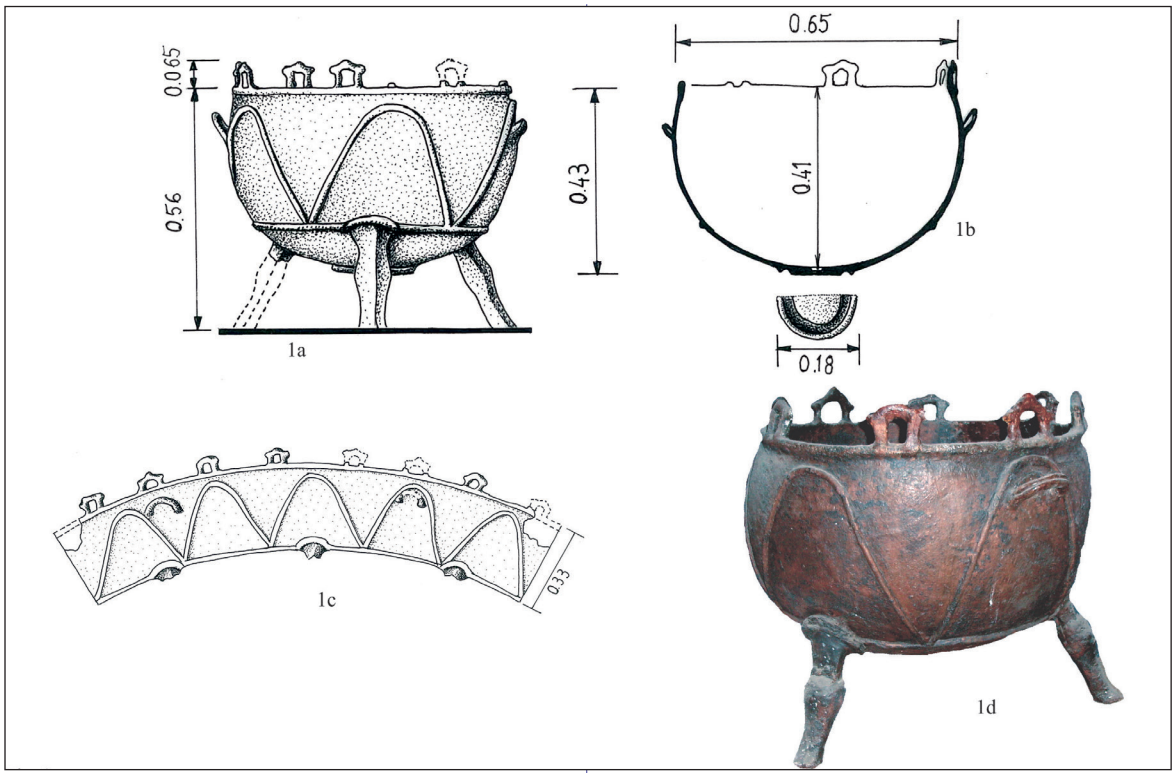

Fig. 3 – Scorțaru Vechi. 1a-d chaudière en bronze (1a-c d'après Pârvan 1926; 1d photo G. Trohani).

De telles pièces sont rares sur le territoire de la Roumanie, on en connaît pour le moment quatre exemplaires, dont deux proviennent de l'est de la Valachie (Scorțaru Vechi, Ograda), une, de Dobroudja (Castelu) et une autre, du nord de la Moldavie (Iacobeni – Dîngeni), toutes étant trouvées par hasard, donc les données essentielles sur les contextes manquent, malheureusement.

La découverte la plus ancienne provient d'un tumulus – le tertre Dinghiliu – de Scorțaru Vechi (dép. de Brăila), partiellement détruit lors de la construction d'une route, probablement en 1899[19]. Selon les informations, la chaudière aurait été trouvée vers le sommet du tertre, à environ 3,00m de profondeur, avec des os pourris. La chaudière a une forme hémisphérique, avec huit anses verticales, attachées à la bouche, plus deux anses obliques, collées au corps, au-dessus du diamètre maximal; le pied central de la chaudière de Scorțaru Vechi était remplacé d'un tripode, ce qui est plus rare aux pièces de ce type (Fig. 3/1a-d).

Des travaux de labourage plus profonds ont mis au jour, toujours fortuitement, la chaudière de Castelu, en Dobroudja; les vérifications faites sur place n'ont pas mené à l'observation de quelque tumulus ou d'autres vestiges archéologiques; ceux qui l'ont trouvée ont précisé qu'elle avait été mise renversée, la bouche en bas[20]. La chaudière est, selon le type, les dimensions et le décor, similaire à celle de Scorțaru Vechi, à la seule différence que ses deux anses représentent, d'une façon plus réaliste, deux boucs (Fig. 4/1a-d).

L'exemplaire trouvé par hasard à Iacobeni – Dîngeni, sur la terrasse basse à droite de Jijia, avait la bouche en bas, selon les dires du découvreur[21]. C'est une chaudière de forme hémisphérique (H. totale = 485mm; DB = 557 mm), prévue de quatre anses (H= 120mm, L. base = 85 mm) sur les deux diamètres, qui représentent chacun, d'une manière stylisée, un capriné, assez bien rendu[22]; deux autres anses, pour la manipulation, se trouvent de côté, diamétralement opposées, sur la partie supérieure du corps. Le pied (H. pied = 195 mm) a une forme d'entonnoir, très évasé à la base (Fig. 5/1a-d).

Puisque tous les exemplaires ont été découverts par hasard, on les a datés aux V^{e}-IV^{e} s. av. J.-C., d'après les analogies avec des pièces similaires découvertes dans la zone nord-pontique[23]. Les chaudières de bronze de ce genre sont typique pour le monde scythique, étant utilisées autant dans les activités ménagères, que dans celles de culte. Leurs caractéristiques, l'utilisation et l'aire de diffusion nous font considérer qu'elles témoignent d'une présence ethnique scythique.

[19] Pârvan 1926, 9-11, fig. 1.

[20] Aricescu 1965, 565-570, fig. 1.

[21] Raţă 1966, 351.

[22] Raţă 1966, 352, fig. 1.

[23] Les chaudières scythiques découvertes sur le territoire de la Roumanie seront analysées dans un autre article où on présentera en détail leurs caractéristiques, y compris les analogies du monde scythique.

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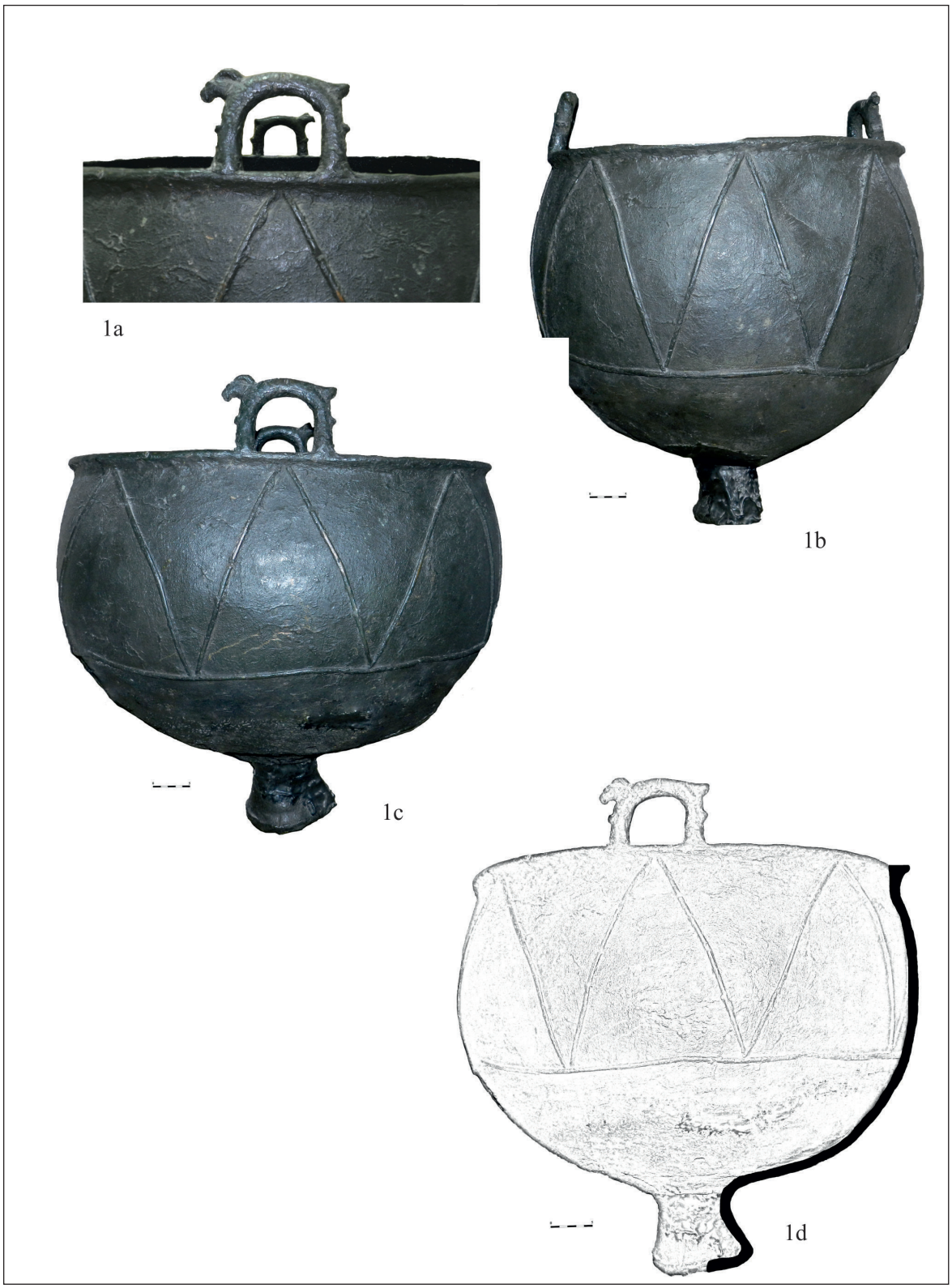

Fig. 4 – Castelu. 1a-d chaudière en bronze (photo, dessin C. Șova).

Observations finales

Depuis nos derniers articles portant sur la situation culturelle-archéologique des VI^e-IV^e s. av. J.-C. à l'est de la Valachie, elle n'a pas changé d'une manière significative[24], malgré la longue période de temps écoulée, pourtant nous allons rappeler quelques-unes des conclusions d'alors, avec quelques nuances.

Certes, tout le monde est d'accord sur la difficulté d'interprétation « ethnique » des vestiges archéologiques qui sont, intrinsèquement, « muets » et « opaques ». Néanmoins, je suis d'avis que cet effort vaut la peine,

[24] Sîrbu 1983, 11-41; 1985, 13-24.

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alors que l'on dispose de preuves et arguments qui nous permettent des interprétations plausibles.

Par ailleurs, nous devons prendre en considération toutes les données des découvertes, tout en accordant la priorité à celles qui sont liées au rite, aux rituels et pièces caractéristiques à une certaine population, car ignorer les unes, ou exagérer le rôle des autres mèneront à des hypothèses ou conclusions erronées.

A présent, les VI^e^-IV^e^ s. av. J.-C. à l'est de la Valachie sont documentés par des tombes ayant des analogies à celles des populations nord-pontiques en ce qui concerne: le rite – l'inhumation, les rituels – le dépôt en décubitus dorsal, l'orientation préférentielle vers le nord ou l'ouest, des plaques de grès au-dessus de la poitrine des défunts, offrande de viande, parfois avec un couteau y enfoncé, pièces caractéristiques – *akinakai*, pointes de flèches à trois arêtes, pièces qui reflètent l'art animalier de ces nomades des steppes[25] etc.

Il s'y ajoute les deux chaudières en bronze de Scorțaru Vechi et Ograda, pièces typiques pour les Scythes. Les chaudières en bronze de ce type sont spécifiques aux Scythes[26], étant découvertes surtout dans les tombes tumulaires royales ou des aristocrates de haut rang, parfois même, dans plusieurs exemplaires. Nous rappelons, dans ce sens, les tombes royales de Čertomlykoù[27], Soloha[28], Tovsta Moghila[29], Melitopol'skii kurgan[30]. Il est important de mentionner l'absence de ce type de chaudière dans les établissements ou nécropoles/ tombes que l'on peut attribuer à la population locale, gétique.

Parmi les découvertes récentes de Bărăgan avec des analogies dans la zone nord-pontique, peu nombreuses, nous ajoutons la tombe tumulaire de Ciulnița[31] et une tombe d'inhumation mise au jour à Bucu-*Pochină*[32]. Le même N. Conovici mentionne la nécropole plane d'inhumation, scythique, de Murgeanca (comm. Bucu), grandement détruite[33].

A Ciulnița on a fouillé un tumulus impressionnant avec une construction du type chaumière en poutres de bois, disposées en rayons. Dans la fosse centrale se trouvait le squelette d'un enfant âgé de 10-12 ans, orienté NNE-SSE, tandis que dans le remplissage de la chambre funéraire il y avait des os épars provenant de cinq chevaux, des lames de couteaux en fer, quatre pointes de flèches de bronze à trois arêtes; une amphore entière de Samos, trouvée auprès de l'enfant a permis la datation de la tombe au VI^e^ s. av. J.-C.[34]. Par le type de construction funéraire et les rituels, ainsi que par certaines pièces du mobilier, cette tombe tumulaire a de nombreuses analogies dans les découvertes scythiques des bassins inférieurs des rivières de Don, Dniepr et Dniestr[35].

La Tombe d'inhumation 1 de Bucu-*Pochină*, orientée est-ouest, avec des traces d'ocre dans le sol des alentours et 16 perles tubulaires de kaolinen tant que mobilier, ayant appartenu à une femme âgée d'environ 25 ans, n'est pas caractéristique au milieu indigène[36]. Néanmoins, on a considéré qu'elle a toute une série d'analogies dans le soi-disant « groupe Ciumbrud » de Transylvanie[37].

Bien que les découvertes de ce type soient peu nombreuses, on peut quand même en faire quelques remarques.

La tombe de Ciulnița se date au VI^e^ s. av. J.-C., la tombe no. 1 de Bucu, aux VI^e^-V^e^ s. av. J.-C., la chaudière d'Ograda, aux V^e^-IV^e^ s. av. J.-C., et la nécropole de Murgeanca, selon les informations fournies par N. Conovici, au IV^e^ s. av. J.-C. Ainsi, on peut observer que l'on a trouvé, dans une zone assez restreinte, des vestiges nord-pontiques datables le long de deux siècles presque.

A Chiscani (dép. de Brăila) on a trouvé dans un tumulus, toujours fortuitement, une tombe d'inhumation secondaire, dont on a récupéré, partiellement, un bassin grec, datable au V^e^ s. av. J.-C., et dans le voisinage, une nécropole plane d'inhumation avec une trentaine de tombes (détruites), ce qui indique une communauté sédentarisée ; le mobilier y récupéré date cette nécropole dans la seconde moitié du IV^e^ s. av. J.-C.[38].

Comme nous l'avons déjà mentionné à une autre occasion[39], on connaît, pour la Plaine de Brăila, une série de découvertes datant des V^e^-IV^e^ s. av. J.-C. – tombes d'inhumation ou pièces iso-

[25] Sîrbu 1983, 37-40.

[26] *Stepi polosa evropeiskoii časti SSSR* 1989, fig. 30/7, 46/1-4; *Stepnaja polosa Aziatskoi časti* 1992, fig. 27/40a-b, 43/a-b; 44-45; 89/15-18.

[27] Alekseev, Murzin, Rolle 1991, 215, fig. 142-143.

[28] Mancevič 1987, 35-36, fig. 8.

[29] Mozolevs'kii 1979, 66, fig. 50.

[30] Terenožkin, Mozolevs'kii 1988, 77, fig. 80.

[31] Marinescu-Bâlcu *et alii* 2000, 149-167.

[32] Renţa 2008, 77, fig. 25/1.

[33] Conovici 1981, 230, note 3.

[34] Marinescu-Bâlcu *et alii* 2000, 149-167.

[35] Marinescu-Bâlcu *et alii* 2000, 150-151, fig. 6.

[36] Renţa 2008, 77, fig. 25/1.

[37] Renţa 2008, 77; Vasiliev 1980, 47-48, 50, 99-100, pl. 18/1.

[38] Harţuche, Anastasiu 1968, 52-57, pl. 65-71; Sîrbu 1983, 25-29, fig. 4-5.

[39] Sîrbu 1983, 11-41.

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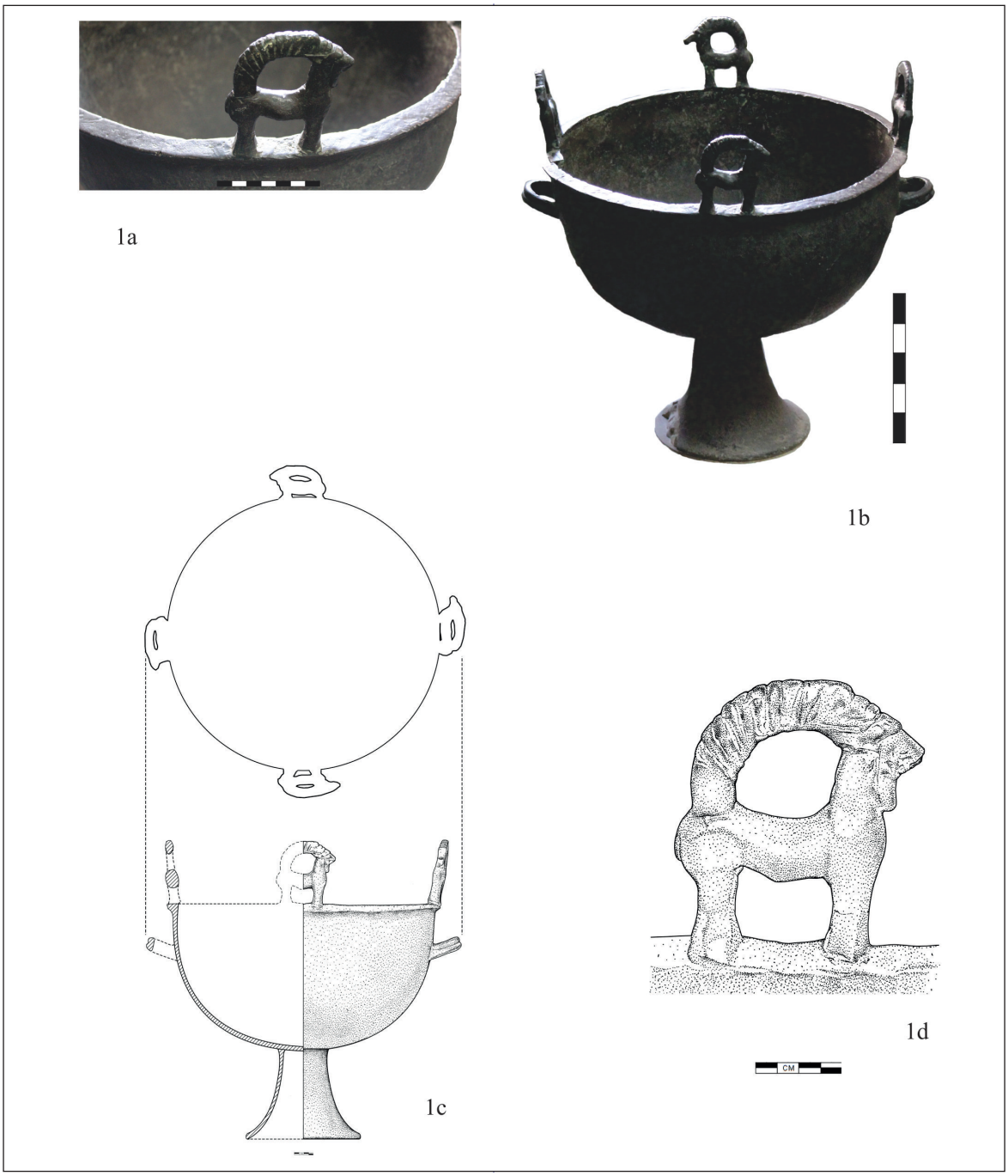

Fig. 5 – Iacobeni – Dîngeni. 1a-d chaudière en bronze (photo A. Kovacs, dessin S. Ciupu).

lées – qui ne sont pas caractéristiques à la population locale, gétique, telle qu'elle est attestée par les cimetières de la zone du Bas Danube, mais elle sont des analogies dans la zone nord-pontique. On ne saurait, dans cette étape de la recherche, dire s'il s'agit de « Scythes authentiques » ou de populations arrivées de la zone nord-pontique, mais qui enterrent leurs morts selon les coutumes des Scythes de la zone[40]. Seulement les analyses anthropologiques, qui manquent à présent, pour les découvertes de l'est de la Valachie, pourraient apporter des informations plus précises concernant l'aire d'origine des défunts.

Par conséquent, à l'est de la Valachie, la seule tombe datable au VIe s. av. J.-C. ne saurait être que celle de Ciulnița, qui a des analogies évidentes dans la zone nord-pontique.

Pour l'instant, on ne connaît pas avec certitude des vestiges de la population locale dans le Bărăgan oriental qui puisse se dater au Ve s. av. J.-C. La tombe no. 6 de Brăilița, dans laquelle on aurait trouvé un œnochoé histrien[41], datable vers l'an

[40] Pour les problèmes épineux de la période 650-450 av. J.-C.dans l'espace carpato-danubien, voir, plus récemment, Alex. Vulpe, 2012, 27-66.

[41] Harţuche, Anastasiu 1968, 32-33; 1976, no. cat. 406; Harţuche 2002, 153, fig. 119/1.

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500 av. J.-C.[42], pose une série de problèmes[43].

Par ailleurs, le Bărăgan oriental a fourni de nombreux vestiges archéologiques datant du IV^e s. av. J.-C., des vestiges que l'on pourrait attribuer, du point de vue culturel-archéologique, autant à la population locale, gétique, qu'aux Scythes[44].

[42] Alexandrescu 1976, 117.

[43] Tout comme nous le mentionnons à une autre occasion (Sîrbu 1982, 121), la présence de ce vase dans T6 de Brăiliţa relève de certains problèmes, puisqu'il est, d'environ un siècle et demi, plus ancien que le début de la nécropole de cet endroit. Nous ne saurons exclure la possibilité que cet œnochoé provienne de la Dobroudja, peut-être même de la colonie grecque Istros, et les collections du Musée de Brăila « Carol I » détiennent de nombreuses pièces provenues de ce site.

[44] Pour une vue générale sur la zone de l'époque respective, voir Sîrbu 1983, 11-41; 1985, 13-24; Conovici 1986, 129-141; Sîrbu, Trohani 2001, 17-41; Sîrbu *et alii* 1997, 209-236, plus les découvertes ultérieures, les unes mentionnées dans cet article.

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NEW DISCOVERIES OF HORSE BURIALS AND DEPOSITIONS IN THE GETIC CEMETERY FROM ZIMNICEA, SOUTHERN ROMANIA

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Key-words: Zimnicea, necropolis, horse burials and depositions, zooarchaeology, 4th-3rd c. BC.

Abstract: During the previous excavations from Zimnicea – *Câmpul morților* (1948-1974), 14 horse burials and partial depositions were revealed. The recent excavations (2007-2009) brought to light other four such discoveries. Two thirds of these 18 features consist in complete horse burials, usually accompanied by inventory objects; the rest of them are partial horse bone depositions, without inventory. Distinct from other funeral discoveries (Agighiol, Peretu, Jankovo, Sveštari), contemporary with the early phase of the Zimnicea cemetery, dated in the 4th-3rd c. BC, the horse remnants were deposed apart from the human burials, without a visible association with them. We are discussing here the chronology of the recent finds, based on the inventory objects and we present the zooarchaeological study of the horse remains (sex, age, height, butchery marks).

Cuvinte-cheie: Zimnicea, necropolă, înmormântări şi depuneri de cai, arheozoologie, sec. 4-3 a. Chr.

Rezumat: În timpul vechilor cercetări arheologice desfășurate la Zimnicea – *Câmpul morților* (1948-1974), au fost descoperite 14 înmormântări și depuneri parțiale de cai, la care se adaugă încă patru descoperiri asemănătoare rezultate din cercetările recente (2007-2009). Din aceste 18 descoperiri, două treimi constau în înmormântări de cai întregi, predominant cu inventar, restul fiind depuneri parțiale fără inventar. Osemintele de cai sunt depuse separat de mormintele umane, fără o asociere vizibilă cu acestea, spre deosebire de alte descoperiri funerare contemporane (Agighiol, Peretu, Jankovo, Sveštari), cu faza de început a necropolei de la Zimnicea, respectiv sec. 4-3 a. Chr. Discutăm în continuare încadrarea cronologică a descoperirilor pe baza pieselor de inventar și prezentăm analiza arheozoologică a resturilor de cai (vârstă, sex, talie, urme de tranșare).

Research history

The first finds in the Getic necropolis from Zimnicea – *Câmpul Morţilor* originated in the three "archaeological explorations" conducted by Cezar Bolliac between 1871 and 1873, in the area located in the immediate eastern vicinity of "Cetate"[1]. He is the one who named the place "Câmpul de morţi dacic"[2] (Fig. 1). After the researches of Bolliac, in the last quarter of the 19th c., the area was searched by amateurs such as Dimitrie Papazoglu and Dimitrie Butculescu. The first systematic researches were conducted by Ion Nestor (1948-1949)[3], followed by Alexandrina D. Alexandrescu (1967-1974)[4].

There were revealed 165 graves throughout the excavations from the 19th c. and 166 graves during the Nestor and Alexandrescu researches. This makes the Zimnicea necropolis one of the most important in the Getic area up to now. The site is significant for understanding not only the material culture and the funeral practices, but also the chronology of the Second Iron Age at the Lower Danube[5].

The archaeological researches at *Câmpul Morților* started again in 2007 and continued until 2009, followed by an additional campaign in 2015. The initial research team was

[1] Bolliac 1872, 2-4; Bolliac 1873, 1-2; Bolliac 1874, 1-2, 4; Măndescu 2009, 205-213.

[2] Bolliac 1872, 2.

[3] Nestor 1949, 116-125; Nestor 1950, 93-102.

[4] Alexandrescu 1980, 19-126.

[5] Măndescu 2010, 165-182, fig. 22-30.

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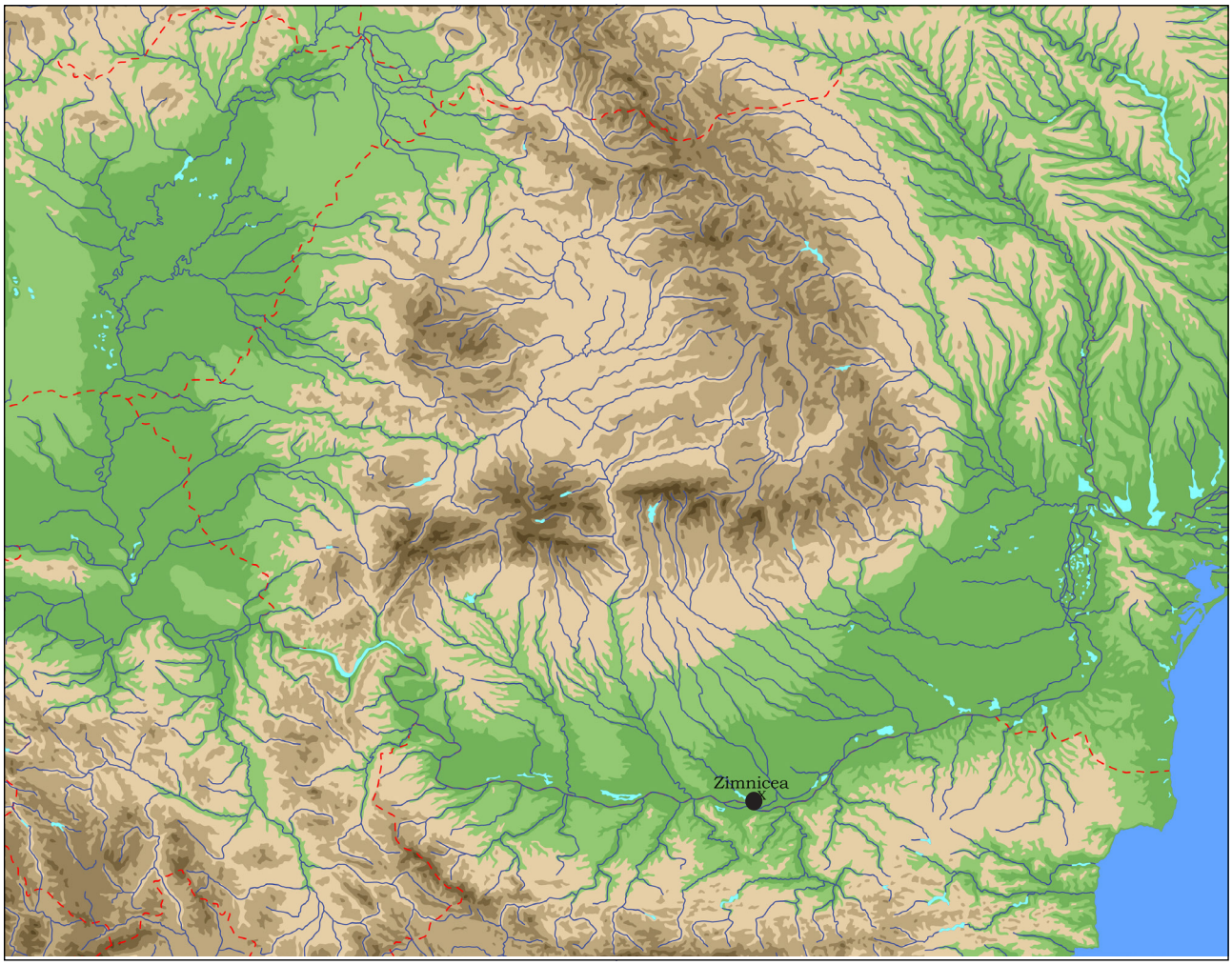

Fig. 1 – Zimnicea – *Câmpul Morţilor* cemetery.

conducted by Mircea Babeș[6]. The last five campaigns were characterised by an emergency trait due to the extension of the present city over the archaeological site. The excavated surface is approximately 0.2 ha and brought to light 52 plane graves, the majority cremated and deposed in urns (Fig. 2).

The horse burials

In addition to the human sepulchres[7], the site also contains numerous horse burials[8]. The excavations conducted by Nestor and Alexandrescu uncovered 14 complete or partial horse burials. The last researches revealed five new features containing horse skeletal parts, this being the main subject of the present study.

To have an overall view, we will discuss these new findings in conjunction with the old ones (Alexandrescu[9], Sergiu Haimovici[10]).

Here is the list of the horse discoveries with a short description of the skeleton's position, depth of the finding, the orientation and the inventory contained by some of the burials. With the exception of horse 17, in all the cases of partial depositions containing the skull, we are dealing in fact with the head, because the mandible is also present.

Horse 1/Z67C10, -1.04-1.30 m, left lateral decubitus. Orientation: S-N. Complete skeleton. ***Inventory:*** Iron bit, *Gesichtsperle*.

Horse 2/Z68C10, -1.00 m, left lateral decubitus. Orientation: E-W. Complete skeleton. ***Inventory:*** iron fibula fragment.

Horse 3/Z68C10, -1.00 m, partial deposition. Orientation: W-E. Skull with metatarsals deposed south of the skull.

Horse 4/Z69C10, -1.20 m, right lateral decubi-

[6] Babeș *et alii* 2008, 331-332; Babeș *et alii* 2009, 232-233; Babeș *et alii* 2010, 208.

[7] We are reffering only to the burials excavated up to the present day. We estimate that the number of graves is much higher but we cannot foresee the dynamics of the future archaeological researches.

[8] Alexandrescu 1983.

[9] Alexandrescu 1983.

[10] Haimovici 1971, 169-185; Haimovici 1983, 79-108.

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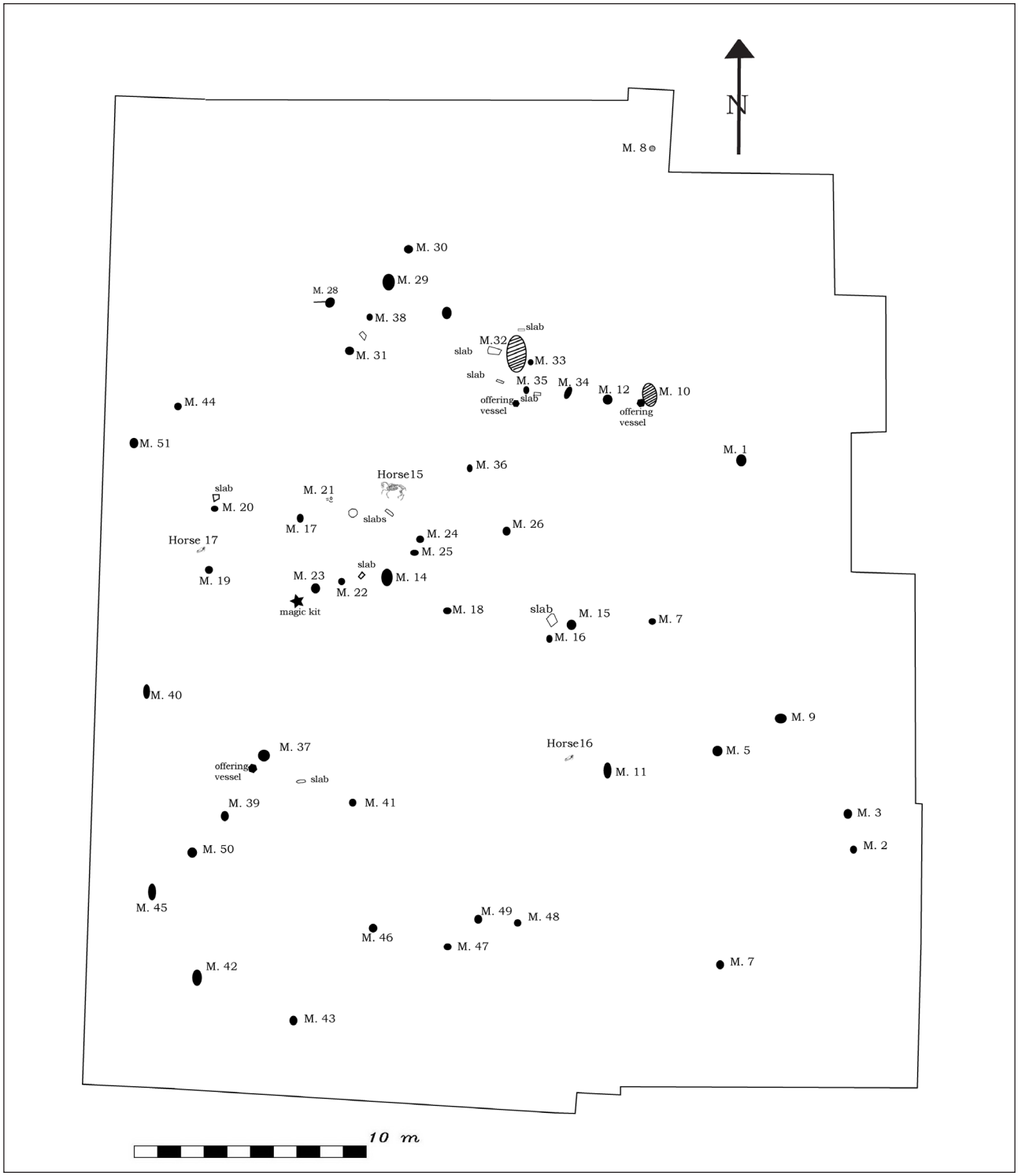

Fig. 2 – Distribution of the findings 2007-2008. ⬬ cremation with bones deposed in urn; ▨ cremation with bones deposed in pit; ●— inhumation graves.

tus. Orientation: S-N. Complete skeleton.

Horse 5/Z69C10, -1.00 m, partial deposition. Orientation: E-W. Skull surrounded by metatarsals.

Horse 6/Z69C10, -0.90 m, right lateral decubitus. Orientation: S-N. Complete skeleton. ***Inventory:*** chain consisting in five bronze rings.

Horse 7/Z69C10, -1.20-1.30 m, left lateral decubitus. Orientation: S-N. Disturbed skeleton. Some of the elements are missing or disturbed.

Horse 8/Z69C10, -1.15 m, right lateral decubitus. Orientation: S-N. Complete skeleton.

Horse 9/Z69C10, -1.15 m, left lateral decubitus. Orientation: W-E. Partial skeleton, disturbed.

Horse 10/Z69C10, Orientation: N-S, partial deposition. Skull and metatarsals.

Horse 11/Z70C15, -1.15 m, right lateral decubi-

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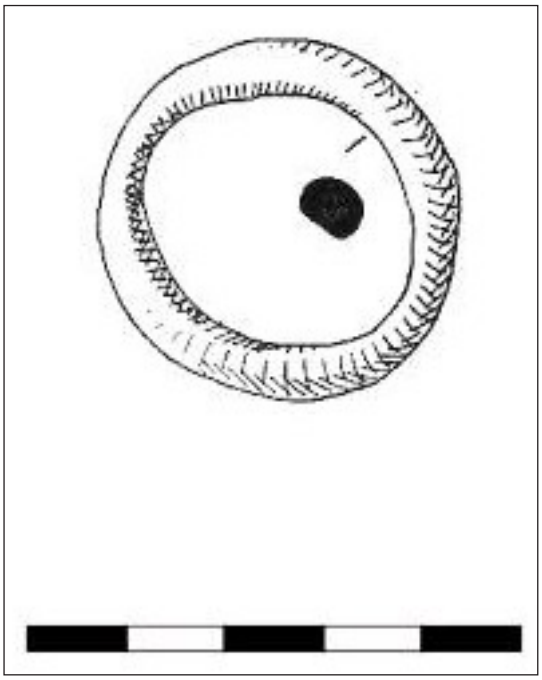

Fig. 3 – Horse 15, bronze ring.

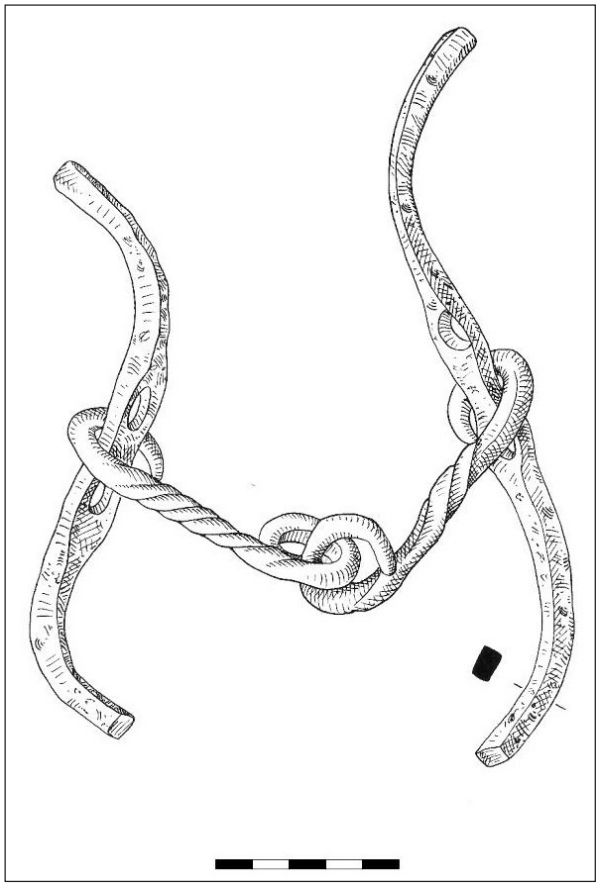

Fig 4 – Horse 15, iron bit.

tus. Orientation: S-N. Complete skeleton.

Horse 12/Z70C17, Orientation: S-N, Complete skeleton, disturbed. ***Inventory:*** fragmentary iron bit, iron spear point.

Horse 13/Z71C10, -1.00 m, right lateral decubitus. Orientation: S-N. Complete skeleton, possibly disturbed. The limbs show burning traces. ***Inventory:*** iron bit, iron harness buckle, bronze bar, and bronze crescent piece.

Horse 14/Z72C17, -1.15 m, left lateral decubitus. Orientation: S-N. Complete skeleton, possibly disturbed? ***Inventory:*** three winged bronze arrow heads.

Horse 15/2008, -1.11-1.37 m, Orientation: E-W. Left lateral decubitus, complete skeleton. ***Inventory***: iron bit, bronze ring (Fig. 3, 4, 5).

Horse 16/2008, -0.66-0.81 m. Orientation: NNW-SSE. Partial deposition. East of the skull, metatarsals and phalanges were identified (Fig. 6). West of the skull a metatarsal fragment was described. Above the bones, -0.60 m deep, hand worked pottery fragments were recovered. The fragments had the inner surface facing up.

Horse 17/2009, -0.65 m. Orientation: E-W. Partial deposition. A horse skull was identified, with the ventral part facing up. (Fig. 7).

Horse 18/2009, S. 24, c. 1. Two features were identified, one -0.35 m deep and the other -0.70 m deep, with a distance of 1.20 m between them. The two features contain distal limb elements from the same individual. The first one contains parts of the front right limb and the rear left limb. The second one contains elements of the left front limb and the rear right limb (Fig. 8, 9, 12).

Reviewing all the contexts of deposed horses, two categories are emerging: complete animals (12) and parts of individuals (6). The complete horse burials prevails, and seven of them contain inventory. The horse 13 shows a unique case, having the limbs intensely burned. The cremations appears to have happened elsewhere and not on the deposition place.

The inventory that accompanied the horse burials consists in harness elements (iron bits, harness rings, buckles and bronze chains), armament (fighting knife, arrow head, and spear point), clothing accessories (fibula) and adornments (*Gesichtsperle*).

The partial horse depositions consists in the head (skull and mandible) accompanied by distal limbs (tarsal/carpal bones, metapodials and phalanges), with two exceptions: horse 17 (only the skull) and horse 18 (only the distal limbs).

An attribute of all the partial horse depositions is the absence of any inventory.

Unlike other discoveries, were horse remains are associated with human graves, at Zimnicea although the horse burials are located

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Fig. 5 – Horse 15.

among the human graves, there is no clear evidence of any connection with the human graves. The association horse and human burials was found mainly in tumular tombs, eventually with funeral chamber/chambers, with one till three horses. We are reffering to discoveries such as those from Agighiol[11], Peretu[12], Jankovo[13], Ivanski[14], Sveštari – *Ginina Mogila*[15] and so on.

The zooarchaelogical description of the newly discovered horses

The age has been determined by measuring the tooth wear[16] and observing the epiphyses fusion state[17]. Sex determination was based on the presence and morphology of canines.

The withers height has been estimated by using the methods of Kiesewalter[18] and Vitt[19]. The biometrical standards created by von den Driesch[20] were used in the present study (tables 1-35).

Horse 15

The age estimated from the lower and upper teeth crown heights[21] is seven to nine years old.

The sex is male, according to canines' morphology and development.

The withers height was calculated using Kiesewalter's system. The minimum value, based on the lateral length of the tibia is 1,258.51 mm, and the maximum value is 1,322.69 mm, obtained from the greatest length of the lateral part of the humerus.

The average withers height obtained from all the measurable elements is 1,284.97 mm. The average between the minimum and maximum values is 1,290.6 mm. By the classifications of Vitt, both values correspond to a horse smaller than average, closer to the small category than the average category.

Pathology

An arthropathic condition was identified on the rear legs of the horse, diagnosed by us as bone spavin (Fig. 10).

Bone spavin is osteoarthritis, or the final phase of degenerative joint disease, in the lower three hock joints. It usually affects the two lowest joints of the

[11] Berciu 1969, 33-76, fig. 7-54; Berciu 1971; Berciu 1974, 40-84, 219-221, fig. 5-39; Măndescu 2010, 12, cat. no. 8.

[12] Moscalu 1986; Moscalu 1989.

[13] Dremsizova 1955, 61-83; Dremsizova 1963, 7-8, pl. 7/4; Hatłas 1997, 311, cat. no. 5-6; Măndescu 2010, 89-90, cat. no. 305.

[14] G. Atanasov, Y. Yorgov 2007, 37-44; Măndescu 2010, 94, cat. no. 320.

[15] Ivanov 1992; Čičikova 1992; Gergova 1996; Măndescu 2010, 155, cat. no. 616.

[16] Levine 1982.

[17] Schmidt 1972.

[18] Kiesewalter 1888.

[19] Vitt 1952.

[20] Driesch 1976.

[21] Levine 1982.

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Fig. 6 – Horse 16.

Fig. 7 – Horse 17.

hock (the tarsometatarsal and the distal intertarsal joints) and the metatarsal fuses with one or more of the tarsals. It is more often seen in older horses and ponies and is a common cause of hind limb lameness[22].

Horse 16

The skull and mandible were found in anatomical connection, accompanied by the right metacarpus with its phalanges, the right metatarsus with its phalanges, but also the first and second phalanges of the left front limb. The skull and mandible were very badly preserved, thus only the teeth could be observed and measured.

The metatarsus exhibits bone damage of the proximal epiphysis, very likely provoked with a heavy metal cutting tool in order to segment the metatarsus from the distal tibia.

The age of the horse was estimated measuring the lower and upper teeth crown heights and falls in the interval of five to seven years.

The sex is male, as indicated by the canines.

Withers height, calculated using the metatarsus and the metacarpus has the average value of 1,390.97 mm. According to Vitt, this is an average height horse.

Horse 17

This is the single case when only the skull was deposited, placed with the ventral face up. In the occipital region, bone damage is evident, destroying the margin of foramen magnum. Most probably it indicates the beheading of the horse with a heavy cutting blade.

The canines erupt at four to five years of age in male horses. This individual has well developed canines, so it is older than five years. According to incisors wear stage we estimate that the age is comprised between five and six years.

The sex is indicated by the presence of canines and it is a male.

Withers height, estimated from the length of the skull is 1,377 mm, thus an average height horse.

Horse 18

The situation is also unique. Only distal limbs from the same animal were found, divided in two features. The age according to metatarsal distal epiphysis[23] is more than 16-20 months.

Cut marks were identified on the posterior side of the os carpale 3 and on the lateral side of the os tarsi centrale, indicating that distal limbs were severed from the horse's carcass and deposed separately. We can therefore eliminate the possibility of post-depositional disarrangement of the body parts (Fig. 11).

The average height estimated on metapodial measurements is 1,417.95. This value corresponds to average size horses.

Discussion and conclusions

From the zooarchaeological perspective we can observe the fact that the complete horse skeletons show no traces of flesh removal or any kind of butchering. In the case of partial deposits, usually consisting in the head and distal limbs placed

[22] Baker & Brothwell 1980.

[23] Silver 1969.

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together, or separately the skull or distal limbs, in three situation butchery marks were recognized (horses 16, 17 and 18). The butchery marks identified on the lower limb elements of horses 16 and 18 and the skull of horse 17 is a result of horse's body parts segmentation.

From the practical view, unlike the main body of the horse, the head and distal limbs are of no important alimentary use. These body parts are often discarded when one butchers an animal with the conformation comparable to a horse's (cattle, sheep, goat or deer). Usually the skull is cracked open to access the brain and the metapodials are also broken for the marrow. The masseter muscles and the tongue are removed, leaving typical cut marks.

Unlike an alimentary butchery process, horse elements from the partial deposits found in Zimnicea are intact, so they showed no alimentary interest for the people that butchered and buried them. In what concerns the rest of the body, rich in meat, there is no indication if it was the subject of human consumption. We assume therefore that the elements we found were separated from the body and deposited in a ritual, symbolic circumstance.

The 18 horse burials and depositions discovered within the Zimnicea necropolis can be divided in two main categories:

1. complete horse burials (12).
2. partial depositions (6) with three subcategories:

2.1. the head and the distal limbs placed together (4);

2.2. the skull (1);

2.3. the distal limbs (1).

In 17 cases the age of the animals could be estimated and ranges between five to ten years old, except one individual, aged about 3.5 years. For 11 horses the sex could be established and all of them appear to be males.

Lacking any evidence, we cannot know for sure if these animals were sacrificed or if they died by natural causes. However, the further treatment of the carcasses stands out.

In the case of the complete horse burials, the animals are placed in lateral decubitus, right and left in similar amount. Most of them are accompanied by inventory, consisting in harness parts, adornments and weapons. No butchery traces were recorded on the skeletons.

The partial horse depositions consist invariably of head and distal limb elements, with no inventory associated. In half of the cases we have identified butchery marks produced while severing the skull or limbs from the main body.

Fig. 8 – Horse 18 – feature 1.

Fig. 9 – Horse 18 – feature 2.

Fig. 10 – Osteoarthritis of the left tarsometatarsal joint of horse 15. Left – anterior view. Right – lateral view.

Although the horse remains are dispersed on the entire surface of the necropolis, they are not associated with human burials, unlike other contemporary sites. The situation raises some problems

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Fig. 11 – Disjointing cut marks on the os magnum of horse 18. The cuts were intended to separate the distal limb from the tibia.

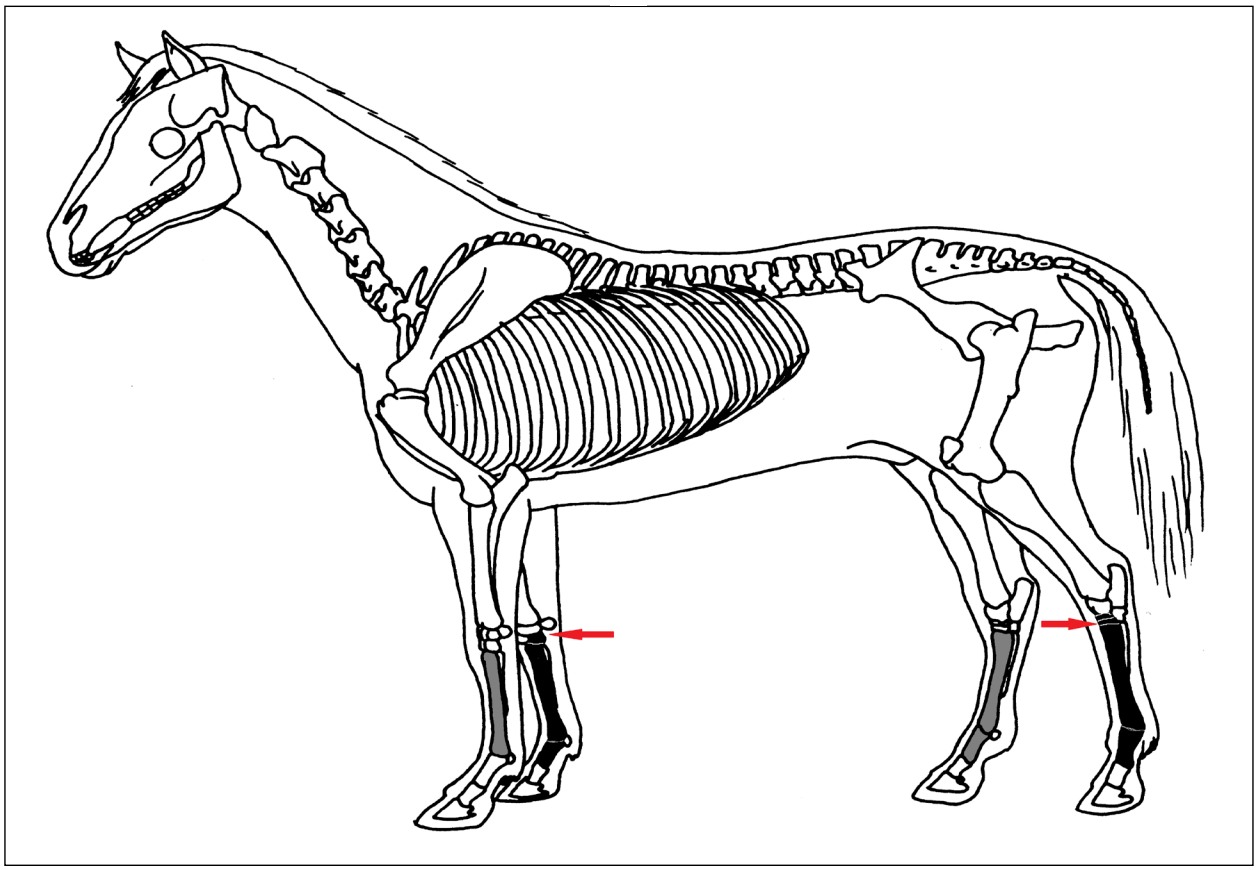

Fig. 12 – Horse 18. Black – the elements from feature 1. Gray – the elements from feature 2. The arrows indicate disjointing cut marks.

regarding the motivation of this behaviour. The horse remnants are located in the proximity of human burials, at variable distances, but no connection can be made between them in the absence of visible archaeological traits on the excavation ground.

The complete horse burials, associated with harness parts and other objects, respect the chronology of the necropolis and join the classical horse burials. Although the partial horse depositions do not contain any datable inventory, they may be considered as contemporary with the complete horse burials, due to the fact that all of them were discovered at similar depths all over the necropolis.

As we observed, the new discovered horse burials from Zimnicea, are scarce in inventory. The only creditable object with chronological value is the iron bit discovered with ***Horse 15***. Even if such discoveries are numerous in the Zimnicea necropolis as well as in other sites (Getic settlements and cemeteries), this horse bit possesses some problems regarding its chronology and typology. Allthough the other horse bits from Zimnicea have quite clear analogies, this is not the case for the piece in discussion. This is an iron bit with cheek pieces *S*-shaped, with rectangular section, and two orifices on each of them. The mouth piece is made of two stranded iron bars, jointed together by two ringlets. The two stranded iron bars are also attached to the cheek pieces by one ringlet each. According to Werner[24], the cheek pieces can be included in type V, variant A, S-shaped iron bit with two orifices located very close two each other. Unlike this variant, our cheek piece lacks the terminal

[24] Werner 1988, taf. 18/120.

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button and the two lateral ringlets. The stranded mouth piece has analogies at Dobrosloveni[25], included by Werner in type V, variant B[26].

According to Werner, type V, variant A 1, with button or angular endings, also includes other tow horse bites from Zimnicea[27], as well as the discovery from Şopot. One of the objects from Zimnicea has the orifice placed in right angle to the bending plane of the cheek piece. The harness was attached by ringlet on one side and on the other side by a double ringlet whose parts are connected by a bar resembling the number 8. The second horse bit from Zimnicea has the mouth piece made of three ringlets of each side with analogies at Şopot.

In Werner's typology[28], type V, variant B is characterised by different shapes of the mouth piece. The one from Dobrosloveni[29] is stranded, another one from Zimnicea[30] has fine nervures, and the one from Şopot[31] is made from a two ringlets sequence, repeated three times. Even though the horse bit we are discussing has no precise analogy in type V, variant A, B, we incline to believe that it can be included in this typology. We may deal with an unfinished object that can be a subvariant of A or B.

Following the distribution of type V, variants A and B horse bits North of the Lower Danube, after Werner[32], we can observe that South of the Danube we found type VI, having the same shape, but the mouth piece is formed by a chain. In type V horse bits at South of Danube only the Jankovo discovery can be included. The most western point of variant B, is the *oppidum* from Manching, Bavaria. Another piece was found in the *oppidum* from Stradonice. On the other hand horse bits from variant B, are more abundant in south-western Ukraine, in kurgans. Similar horse bits are rarely found in south-east Europe. Except the simple *S*-shaped horse bits, a great amount of S-shaped ornated cheek pieces was discovered. Variants A and B, are found in the kurgans of south Ukraine, often in the same complex.

Concerning the chronology of type V, a starting point for Werner, is ***M. 7,*** from Bugeac II cemetery. According to P. Alexandrescu[33], the horse bit was found with a attic kantharos with black lacquer, dated in the second quarter of the 4th century BC. Another kantharos with two handles was found at Zimnicea associated with a type A horse bit, and dated by P. Alexandrescu in the third quarter of the 4th century BC[34]. The Jankovo I tumulus[35] was dated at the end of the 4th century BC[36].

Considering all these facts as well as the chronology of the Zimnicea cemetery, that starts in at the half of 4th century BC and ends in the 1st century BC, we can assume that the new discovered horse bit can be dated eventualy in the early period of the necropolis, with analogies with the Ukrainian kurgans.

In the same feature a bronze link was also found, but it does not have a chronological value. This type of link is common in the Getic necropolis from Zimnicea and also in other necropolises or isolated tombs.

[25] Nicolăescu-Plopşor 1945-1947, 23, pl. V/9.
[26] Werner 1988, taf. 19/131.
[27] Werner 1988, 37, cat. no. 123, 124, taf. 18/123, 19/124.
[28] For type V, variant B see Werner 1986, 40-41.
[29] Nicolăescu-Plopşor 1947, 23, taf. V/12.
[30] Werner 1988, 40, cat. no. 137, taf. 20/137.
[31] Werner 1988, 40, cat. no. 135, taf. 20/135.
[32] Werner 1988, 41, taf. 69A.
[33] P. Alexandrescu 1976, 118, 123.
[34] P. Alexandrescu 1976, 123.
[35] Werner 1988, 38, cat. no. 125, 126.
[36] Dremsizova 1955, 81.

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Biometry

Table 1. Horse 15.		
Maxillary teeth	**Dex.**	**Sin.**
Length of P^2	38.23	38.05
Breadth of P^2	23.93	24.52
Length of P^3	29.10	29.08
Breadth of P^3	26.72	26.40
Length of P^4	29.35	29.58
Breadth of P^4	26.70	26.32
Length of M^1	25.56	25.78
Breadth of M^1	25.20	25.65
Length of M^2	27.00	26.60
Breadth of M^2	24.98	24.96
Length of M^3	27.27	27.42
Breadth of M^3	22.25	22.96

Table 2. Horse 15 – Mandible.		Dex.	Sin.
6. Length of the cheektooth row measured along the alveoli on the buccal side		172.70	
6a. Length of the cheektooth row measured near the biting surface		169.00	
7. Length of the molar row measured along the alveoli on the buccal side		84.06	
7a. Length of the molar row measured near the biting surface		82.90	
8. Length of the premolar row measured along the alveoli on the buccal side		89.84	
8a. Length of the premolar row measured near the biting surface		85.54	
9.	Length of P_2	31.36	30.24
	Breadth of P_2	16.19	16.30
10.	Length of P_3	27.00	27.69
	Breadth of P_3	19.45	18.08
11.	Length of P_4	26.00	26.82
	Breadth of P_4	19.34	18.88
12.	Length of M_1	26.40	25.67
	Breadth of M_1	17.60	17.12
13.	Length of M_2	25.00	25.40
	Breadth of M_2	16.92	16.20
14.	Length of M_3	32.50	33.27
	Breadth of M_3	14.90	14.02
22a. Height of the mandible behind M_3 from the most aboral point of the alveolus		106.90	

Table 3. Horse 15 – Atlas.	
GL – Greatest length	94.00
BFcr – Greatest breadth of the Facies articularis cranialis	84.80
BFcd – Greatest breadth of the Facies articularis caudalis	80.50
GLF – Greatest length from the BFcr to the BFcd	78.50
H – Height	75.00

Table 4. Horse 15 – Axis.	
LCDe – Length in the region of the corpus	131.00
BFcr – Greatest breadth of the Facies articularis cranialis	79.27
SBV – Smallest breadth of the vertebra	39.90

Table 5. Horse 15 – Sacrum.	
GL – Greatest length on the ventral side	203.75
PL – Physiological length	180.66
GB – Greatest breadth	180.80
BFcr – Greatest breadth of the Facies terminalis cranialis	44.07
HFcr – Greatest height of the Facies terminalis cranialis	19.92

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Table 6. Horse 15 – Scapula.	Dex.	Sin.
SLC – Smallest length of the Collum scapulae		59.16
GLP – Greatest length of the Processus articularis	90.50	89.83
LG – Length of the glenoid cavity	54.30	53.45
BG – Breadth of the glenoid cavity		42.86

Table 7. Horse 15 – Humerus.	Dex.	Sin.
GL – Greatest length		273.60
GLl – Greatest length of the lateral part		271.60
GLC – Greatest length from caput		258.50
SD – Smallest breadth of the diaphysis	34.50	34.90
Bd – Greatest breadth of the distal end	70.60	70.30
BT – Greatest breadth of the trochlea	69.40	69.25
Withers height	**1,322.69**	

Table 8. Horse 15 – Radius and ulna.	Dex.	Sin.
GL – Greatest length	380.00	379.70
GLl – Greatest length of the lateral part	376.00	375.80
Withers height	**1,278.06**	

Table 9. Horse 15 – Radius.	Dex.	Sin.
GL – Greatest length	309.30	309.66
PL – Physiological length	300.64	301.48
Ll – Length of the lateral part	294.48	295.38
Bp – Greatest breadth of the proximal end	77.92	78.09
BFp – Breadth of the Facies articularis proximalis	71.22	70.94
SD – Smallest breadth of the diaphysis	36.63	37.45
CD – Smallest circumference of the diaphysis	114.00	114.00
Bd – Greatest breadth of the distal end	71.40	70.90
BFd – Breadth of the Facies articularis distalis	61.45	60.62
Withers height	**1,279.99**	

Table 10. Horse 15 - Pelvis.	Dex.	Sin.
LA – Length of the acetabulum including the lip	61.73	63.00
LAR – Length of the acetabulum on the rim	58.10	60.50

Table 11. Horse 15 – Femur.	Dex.	Sin.
SD – Smallest breadth of the diaphysis	38.00	38.00
CD – Smallest circumference of the diaphysis	140.00	140.00
Bd – Greatest breadth of the distal end	86.00	85.60

Table 12. Horse 15 – Patella.	Dex.
GL – Greatest length	66.03
GB – Greatest breadth	65.57

Table 13. Horse 15 – Tibia.	Dex.	Sin.
GL – Greatest length	328.31	327.92
Ll – Lateral length on the outer side	288.80	288.50
Bp – Greatest breadth of the proximal end	90.52	91.34
SD – Smallest breadth of the diaphysis	38.32	36.90
CD – Smallest circumference of the diaphysis	112.00	110.00
Bd – Greatest breadth of the distal end	70.89	68.69
Dd – Greatest depth of the distal end	44.72	44.47
Withers height	**1,258.51**	

Table 14. Horse 15 – Astragalus.	Dex.	Sin.
GH – Greatest height	58.85	58.14
GB – Greatest breadth	59.80	59.45
BFd – Breadth of the Facies articularis distalis	47.58	46.70
LmT – Length of the medial part of Trochlea tali	57.46	56.85

Table 15. Horse 15 – Calcaneus.	Dex.	Sin.
GL – Greatest length	107.08	105.90
GB – Greatest breadth	49.54	49.36

Table 16. Horse 15 – Metacarpus III.	Dex.	Sin.
GL – Greatest length	208.18	207.18
GLl – Greatest length of the lateral side	205.04	203.60
Ll – Lateral length on the outer side	198.73	197.48
Bp – Greatest breadth of the proximal end	47.71	48.30
Dp – Greatest depth of the proximal end	32.19	31.90
SD – Smallest breadth of the diaphysis	33.22	33.53
CD – Smallest circumference of the diaphysis	95.00	96.00
DD – Smallest depth of the diaphysis	21.49	21.91
Bd – Greatest breadth of the distal end	48.74	49.82
Dd – Greatest depth of the distal end	33.49	34.53
Withers height	**1,269.84**	

Table 17. Horse 15 – Metatarsus III.	Dex.	Sin.
GL – Greatest length	253.84	
GLl – Greatest length of the lateral side	250.63	
Ll – Lateral length on the outer side	244.04	
Bp – Greatest breadth of the proximal end	52.35	
Dp – Greatest depth of the proximal end	50.60	
SD – Smallest breadth of the diaphysis	29.25	29.60
CD – Smallest circumference of the diaphysis	92.00	91.00
DD – Smallest depth of the diaphysis	23.50	22.84
Bd – Greatest breadth of the distal end	49.22	48.33
Dd – Greatest depth of the distal end	35.90	35.84
Withers height	**1,300.73**	

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Table 18. Horse 15 – Phalanx I.	Phalanx I ant. dex.	Phalanx I ant. sin.	Phalanx I post. dex.	Phalanx I post. sin.
GL – Greatest length	79.93	80.64	76.46	76.70
Bp – Greatest breadth of the proximal end	52.52	54.27	52.54	53.48
BFp – Breadth of the Facies articularis proximalis	48.60	49.00	48.04	48.80
Dp – Depth of the proximal end	33.80	34.06	36.70	36.13
SD – Smallest breadth of the diaphysis	34.70	35.10	33.00	32.50
Bd – Greatest breadth of the distal end	45.36	46.34	43.40	44.33
BFd – Breadth of the Facies articularis distalis	43.50	43.70	41.60	41.80

Table 19. Horse 15 – Phalanx II.	Phalanx II ant. dex.	Phalanx II ant. sin.	Phalanx II post. dex.	Phalanx II post. sin.
GL – Greatest length	45.30	46.16	48.14	48.03
Bp – Greatest breadth of the proximal end	50.15	52.81	50.20	50.37
BFp – Breadth of the Facies articularis proximalis	46.26	46.16	44.88	45.00
Dp – Depth of the proximal end	30.88	31.35	32.64	31.75
SD – Smallest breadth of the diaphysis	43.41	44.98	42.48	42.19
Bd – Greatest breadth of the distal end	48.18	49.54	47.60	45.90

Table 20. Horse 15 – Phalanx III.	Phalanx III ant. dex.	Phalanx III ant. sin.	Phalanx III post. dex.	Phalanx III post. sin.
LF – Length of the Facies articularis	22.70	22.30	23.77	22.74
BF – Breadth of the Facies articularis		52.30	46.70	51.24
HP – Height in the region of the extensor process	37.67	37.82	41.50	

Table 21. Horse 16 – Mandible.		Dex.	Sin.
6. Length of the cheektooth row measured along the alveoli on the buccal side		172.84	
6a. Length of the cheektooth row measured near the biting surface		166.52	
7. Length of the molar row measured along the alveoli on the buccal side		83.45	82.92
7a. Length of the molar row measured near the biting surface		81.00	81.45
8. Length of the premolar row measured along the alveoli on the buccal side		89.87	
8a. Length of the premolar row measured near the biting surface		86.75	
9	Length of P_2	31.88	30.49
	Breadth of P_2	16.45	16.34
10	Length of P_3	28.80	27.98
	Breadth of P_3	17.39	17.43
11	Length of P_4	28.90	26.27
	Breadth of P_4	18.25	18.67
12	Length of M_1	26.10	25.50
	Breadth of M_1	17.85	17.44
13	Length of M_2	25.50	26.50
	Breadth of M_2	16.64	16.28
14	Length of M_3	31.90	31.34
	Breadth of M_3	14.30	14.10
22a. Height of the mandible behind M_3. from the most aboral point of the alveolus		106.00	106.00
22b. Height of the mandible in front of M_1		79.00	81.40
22c. Height of the mandible in front of P_2		53.50	

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Table 22. Horse 16 – Maxillary teeth.	Dex.	Sin.
Length of P^2	37.95	
Breadth of P^2	27.50	
Length of P^3	29.83	
Breadth of P^3	27.50	
Length of P^4	28.50	28.45
Breadth of P^4	26.76	26.50
Length of M^1	25.80	25.28
Breadth of M^1	25.60	25.54
Length of M^2	26.06	26.27
Breadth of M^2	24.90	24.80
Length of M^3	26.49	26.32
Breadth of M^3	22.30	22.07

Table 23. Horse 16 – Metacarpus III dex.	
GL – Greatest length	224.90
GLl – Greatest length of the lateral side	221.49
Ll – Lateral length on the outer side	214.80
Bp – Greatest breadth of the proximal end	49.63
Dp – Greatest depth of the proximal end	33.05
SD – Smallest breadth of the diaphysis	33.64
CD – Smallest circumference of the diaphysis	97.00
DD – Smallest depth of the diaphysis	22.71
Bd – Greatest breadth of the distal end	49.68
Dd – Greatest depth of the distal end	36.20
Withers height	**1,376.86**

Table 24. Horse 16 – Metatarsus III dex.	
GL – Greatest length	267.80
GLl – Greatest length of the lateral side	265.27
Ll – Lateral length on the outer side	263.62
SD – Smallest breadth of the diaphysis	31.32
CD – Smallest circumference of the diaphysis	95.00
DD – Smallest depth of the diaphysis	25.72
Bd – Greatest breadth of the distal end	50.86
Dd – Greatest depth of the distal end	35.96
Withers height	**1,405.09**

Table 25. Horse 16 – Phalanx I.	Phalanx I ant. dex.	Phalanx I ant. sin.	Phalanx I post. dex.
GL – Greatest length	83.78	83.76	80.90
Bp – Greatest breadth of the proximal end	54.43	55.15	55.96
BFp – Breadth of the Facies articularis proximalis	49.10	50.80	52.20
Dp – Depth of the proximal end	34.97	35.67	37.82
SD – Smallest breadth of the diaphysis	34.37	34.92	34.57
Bd – Greatest breadth of the distal end	46.31	46.82	44.84
BFd – Breadth of the Facies articularis distalis	46.27	44.71	43.85

Table 26. Horse 16 – Phalanx II.	Phalanx II ant. dex.	Phalanx II ant. sin.	Phalanx II post. dex.
GL – Greatest length	43.65	43.94	45.26
Bp – Greatest breadth of the proximal end	52.82	53.70	52.64
BFp – Breadth of the Facies articularis proximalis	47.68	47.38	45.87
Dp – Depth of the proximal end	30.88	31.38	32.00
SD – Smallest breadth of the diaphysis	45.20	45.62	43.30
Bd – Greatest breadth of the distal end	48.95	50.08	47.45

Table 27. Horse 16 – Phalanx III.	Phalanx III ant. dex.
GL – Greatest length	57.90
GB – Greatest breadth	76.13
LF – Length of the Facies articularis	23.00
BF – Breadth of the Facies articularis	46.93
Ld – Length of the dorsal surface	53.70
HP – Height in the region of the extensor process	37.70

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Table 28. Horse 17 – Cranium.		
1. Total length: Akrokranion – Prosthion		510.00
12. Most oral point of the facial crest on one side – Prosthion		217.00
13. Short lateral facial length: Entorbitale – Prosthion		302.00
15. Lateral facial length: Ectorbitale – Prosthion		363.00
19. Dental length: Postdentale – Prosthion		286.00
20. Lateral length of the premaxilla: Nasointermaxillare – Prosthion		180.00
21. Length of the diastema (P^2 – I^3)		85.00
22. Length of the cheektooth row measured along the alveoli		164.70
22a. Length of the cheektooth row measured near the biting surface		161.30
23. Length of the molar row measured along the alveoli on the buccal side		75.90
23a. Length of the molar row measured near the biting surface		74.00
24. Length of the premolar row measured along the alveoli on the buccal side		91.80
24a. Length of the premolar row measured near the biting surface		90.60
25	Length of P^2	36.37
	Breadth of P^2	24.40
26	Length of P^3	29.00
	Breadth of P^3	27.20
27	Length of P^4	27.00
	Breadth of P^4	27.30
28	Length of M^1	24.00
	Breadth of M^1	25.00
29	Length of M^2	24.00
	Breadth of M^2	23.06
30	Length of M^3	27.50
	Breadth of M^3	21.50
31. Greatest inner length of the orbit: Ectorbitale – Entorbitale		64.10
32. Greatest inner height of the orbit		52.25
33. Greatest mastoid breadth: Otion – Otion		112.00
38. Greatest neurocranium breadth: Euryon – Euryon		103.00
40. Least breadth between the supraorbital foramina		142.60
41. Greatest breadth of skull: Ectorbitale – Ectorbitale		212.50
42. Least breadth between the orbits: Entorbitale – Entorbitale		148.50
43. Facial breadth between the outermost points of the facial crest at the point of intersection of the maxillo-jugal suture with the facial ridge		176.00
44. Facial breadth between the infraorbital foramina		80.80
45. Greatest breadth of 'snout': measured across the outer borders of the alveoli of I^3		65.70
46. Greatest breadth on the curvature of the premaxillae		63.50
47. Least breadth in the region of the diastema		57.50
48. Greatest palatal breadth: measured across the outer borders of the alveoli		116.37

Table 29. Horse 18, feature 1 – Metacarpus III dex.	
GL – Greatest length	231.01
GLl – Greatest length of the lateral side	228.13
Ll – Lateral length on the outer side	222.71
Bp – Greatest breadth of the proximal end	50.91
Dp – Greatest depth of the proximal end	34.15
SD – Smallest breadth of the diaphysis	32.53
CD – Smallest circumference of the diaphysis	95.00
DD – Smallest depth of the diaphysis	23.06
Bd – Greatest breadth of the distal end	50.09
Dd – Greatest depth of the distal end	36.23
Withers height	**1,427.57**

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Table 30. Horse 18, feature 1- Phalanx I ant. dex.	
GL – Greatest length	89.00
Bp – Greatest breadth of the proximal end	56.20
BFp – Breadth of the Facies articularis proximalis	51.90
Dp – Depth of the proximal end	36.20
SD – Smallest breadth of the diaphysis	34.50
Bd – Greatest breadth of the distal end	48.55
BFd – Breadth of the Facies articularis distalis	45.20

Table 31. Horse 18, feature 1- Metatarsus III sin.	
GL – Greatest length	271.89
GLl – Greatest length of the lateral side	270.00
Ll – Lateral length on the outer side	265.44
Bp – Greatest breadth of the proximal end	52.55
Dp – Greatest depth of the proximal end	41.27
SD – Smallest breadth of the diaphysis	30.40
CD – Smallest circumference of the diaphysis	96.00
DD – Smallest depth of the diaphysis	25.80
Bd – Greatest breadth of the distal end	49.70
Dd – Greatest depth of the distal end	36.50
Withers height	**1,414.79**

Table 32. Horse 18, feature 1- Phalanx I post. sin.	
GL – Greatest length	84.84
Bp – Greatest breadth of the proximal end	55.40
BFp – Breadth of the Facies articularis proximalis	51.39
Dp – Depth of the proximal end	38.90
SD – Smallest breadth of the diaphysis	34.00
Bd – Greatest breadth of the distal end	46.70
BFd – Breadth of the Facies articularis distalis	43.50

Table 33. Horse 18, feature 2 – Metacarpus III sin.	
GL – Greatest length	230.80
GLl – Greatest length of the lateral side	227.92
Ll – Lateral length on the outer side	222.31
Bp – Greatest breadth of the proximal end	50.45
Dp – Greatest depth of the proximal end	33.80
SD – Smallest breadth of the diaphysis	33.40
CD – Smallest circumference of the diaphysis	95.00
DD – Smallest depth of the diaphysis	22.95
Bd – Greatest breadth of the distal end	50.09
Dd – Greatest depth of the distal end	36.22
Withers height	**1,425.00**

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Table 34. Horse 18, feature 2 – Metatarsus III dex.	
GL – Greatest length	271.60
GLl – Greatest length of the lateral side	270.29
Ll – Lateral length on the outer side	263.50
Bp – Greatest breadth of the proximal end	51.90
Dp – Greatest depth of the proximal end	41.88
SD – Smallest breadth of the diaphysis	30.63
CD – Smallest circumference of the diaphysis	96.00
DD – Smallest depth of the diaphysis	26.52
Bd – Greatest breadth of the distal end	49.00
Dd – Greatest depth of the distal end	36.45
Withers height	**1,404.45**

Table 35. Horse 18, feature 2 – Phalanx I post. dex.	
GL – Greatest length	84.92
Bp – Greatest breadth of the proximal end	55.31
BFp – Breadth of the Facies articularis proximalis	51.33
Dp – Depth of the proximal end	38.63
SD – Smallest breadth of the diaphysis	33.38
Bd – Greatest breadth of the distal end	46.50
BFd – Breadth of the Facies articularis distalis	43.25

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"MIRROR, MIRROR... IN MY HAND". ABOUT A TOILET ARTICLE OF THE GETO-DACIANS

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Key-words: Geto-Dacian archaeological sites, bronze mirrors, imports, local products.

Abstract: Starting from the finds uncovered in the Getic *Dava* from Radovanu-*Gorgana a Doua* (moulds for casting mirrors, as well as fragmentary mirrors), we took an insight into the aspects connected with this adornment objects discovered on the territory inhabited by the Geto-Dacians. There are mentioned the most interesting older and more recent discoveries. There are also added some considerations regarding their production places, about the problem of the imported ware or local workshops and about their dating.

Cuvinte-cheie: Situri arheologice geto-dacice, oglinzi de bronz, importuri, producţii autohtone.

Rezumat: Pornind de la descoperirile făcute în *dava* getică de la Radovanu-*Gorgana a Doua* (tipare de turnat oglinzi şi fragmente de oglinzi), se face o incursiune în problematica acestui tip de obiect de podoabă descoperit pe teritoriul ocupat de geto-daci. Sunt amintite cele mai interesante descoperiri, atât unele mai vechi cât şi altele recente. Se fac aprecieri cu privire la locurile de producţie, la problema importurilor sau atelierelor locale, la datarea oglinzilor.

The specialists are unanimous in considering that the mirrors occurred on the territory of Romania even beginning with the Late Hallstatt period[1]. Valentin Vasiliev identified three types for the space of Transylvania: A – "*with a small central handle*"[2], B – "*with channelled, elongated handle, with animal ornaments*"[3], C – "*with a simple, elongated handle, made of iron and applied upon the disk, by rivets*"[4]. *Type A* would have had a Scythian origin, *Type B* a Greek North-Pontic one, while *Type C* would have likely come from the nomads in Eastern Europe[5].

The first mirrors of the Getic space are those documented in the sites from Dobroudja. Thus, at Cernavodă-*Coada Zăvoiului*, in the cremation *Burial no. 1* of the 5th c. BC, a "*Greek mirror*" was discovered, made entirely of bronze, being disk-shaped (diameter = 13.8 cm), and with an iron handle (Fig. 5/3)[1]. Dumitru Berciu did not exclude the possibility that this object could have been produced at Olbia. On the other side, it could not be also excluded the hypothesis that the item could have been a "*Scythian*" one, especially when considering that the original handle had been broken in the past and replaced with a new one, made of iron.

In the necropolis from Enisala, four mirrors were discovered[2]. One of them is a Greek one, with a bronze handle (Fig. 5/6)[3]; another one is of the same type, but with the disk decorated with dots and strongly fragmented[4], being dated between

[1] Vasilev 1980, 113-117 with lit.; Babeş 2000, 225; A. Vulpe 2001, 411. For the sites on the left side of the Pruth River, in the Republic of Moldavia, see, for instance, the Scythian mirror from the Thracian settlement from Saharna Mare (Niculiţă *et alii* 2011, 199 with lit., fig. 5/13).

[2] Vasiliev 1980, 113, pl. 24/1-2: discoveries at Aiud, Cipău – fig. VI/3, Fântânele.

[3] Vasiliev 1980, 113, figs. 24/3-5, 25/1-2: Ghindari, Turda, Jacu – fig. VI/1, Păuca, Răscruci, Feiurdeni.

[4] Vasiliev 1980, 114, pls. 25/3-4, 26/1-3: Ciumbrud, Comorod – fig. VI/2, Fântânele, Copşa Mică.

[5] Vasiliev 1980, 114-117.

[1] Berciu 1957, 283-284, figs. 9-10.

[2] Simion 1977, 55.

[3] Simion 1977, pl. XI/f; Simion 2003, 314 with fig. 14/4, 328 with pl. 2/7.

[4] Simion 1971, 118, fig. 31/e.

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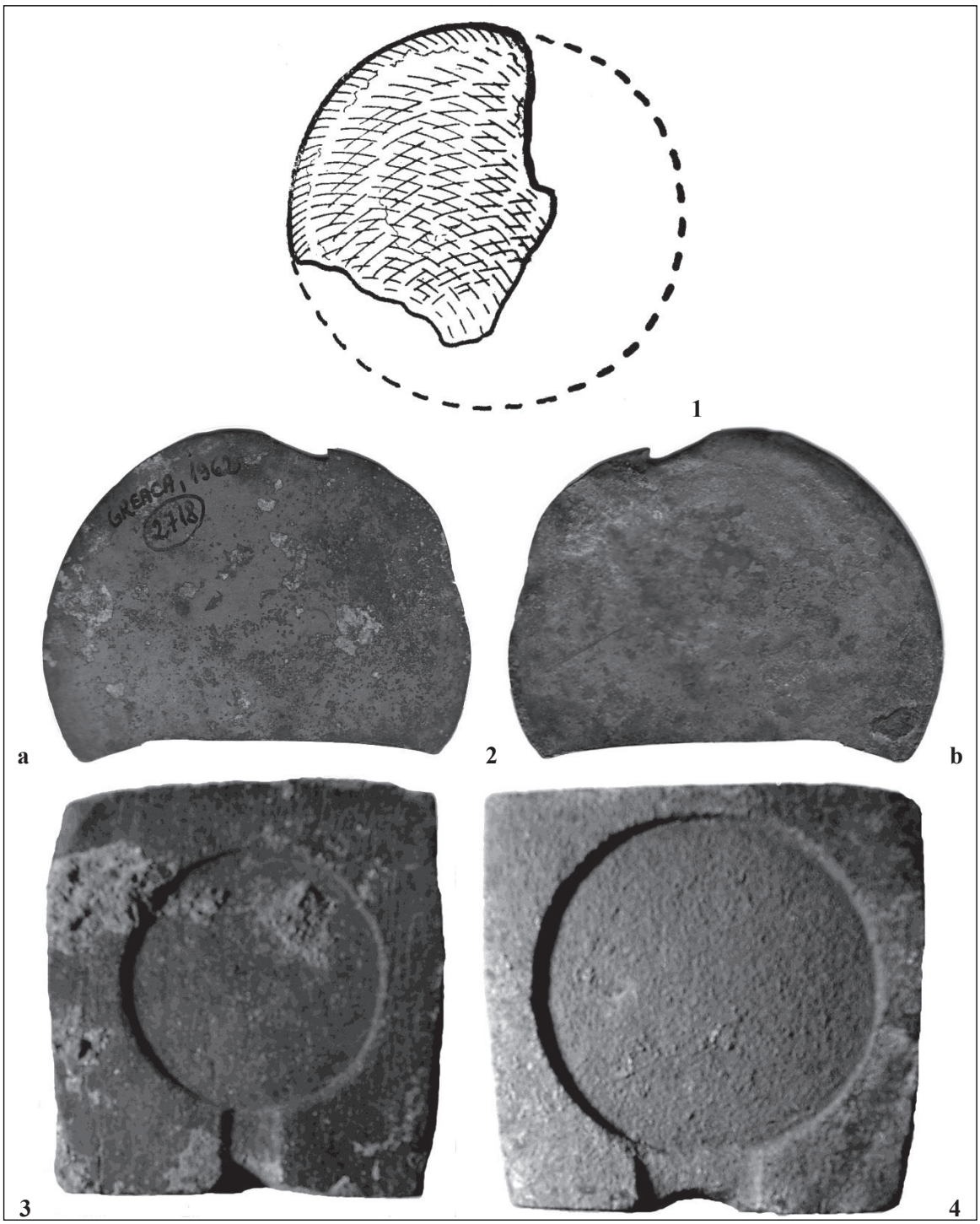

Fig. 1 – Mirrors: 1 = Radovanu-*Gorgana a Doua* (after Şerbănescu 1998), 2 = Greaca-*Părul* (a, frontview; b, backside; foto Cristian Schuster); mirror moulds: 4-5 = Radovanu-*Gorgana a Doua* (foto Gheorghe Chelmec). Different scales.

400-340 BC[10]. The third mirror had a complete disk, but part of the handle was missing (Fig. 5/2)[11]. Under the stone ring of the *Tumulus 3B*, it was unearthed *Burial no. 2*, with the cremated bones placed upon a gritstone, while above them it was put a bronze mirror (diameter = 14.5 cm), with its handle missing, but which had undergone "*a reparation by perforation for the rivets of another handle, the latter being not found*" (Fig. 5/1)[12].

Another item, of the handled mirrors type (diameter = 13.8 cm, handle length = 9.8 cm)[13], "*made of a single bronze plaque..., with the handle ended by a knob*"[14], was recovered from a burial of the necropolis from Nuntaşi (Fig. 5/4). This was dated in the first half of the 4th c. BC, a fact that ena-

[10] Teleagă 2008, 457-458, *Catalog no. 1063*, pl. 139/3; Măndescu 2010, 284.

[11] Simion 1977, pl. XI/f; Simion 2003, fig. 14/4.

[12] Simion 1971, 110, fig. 27/b.

[13] Rădulescu 1961, 387-388, fig. 1.

[14] Teleagă 1999, 40, fig. 3.

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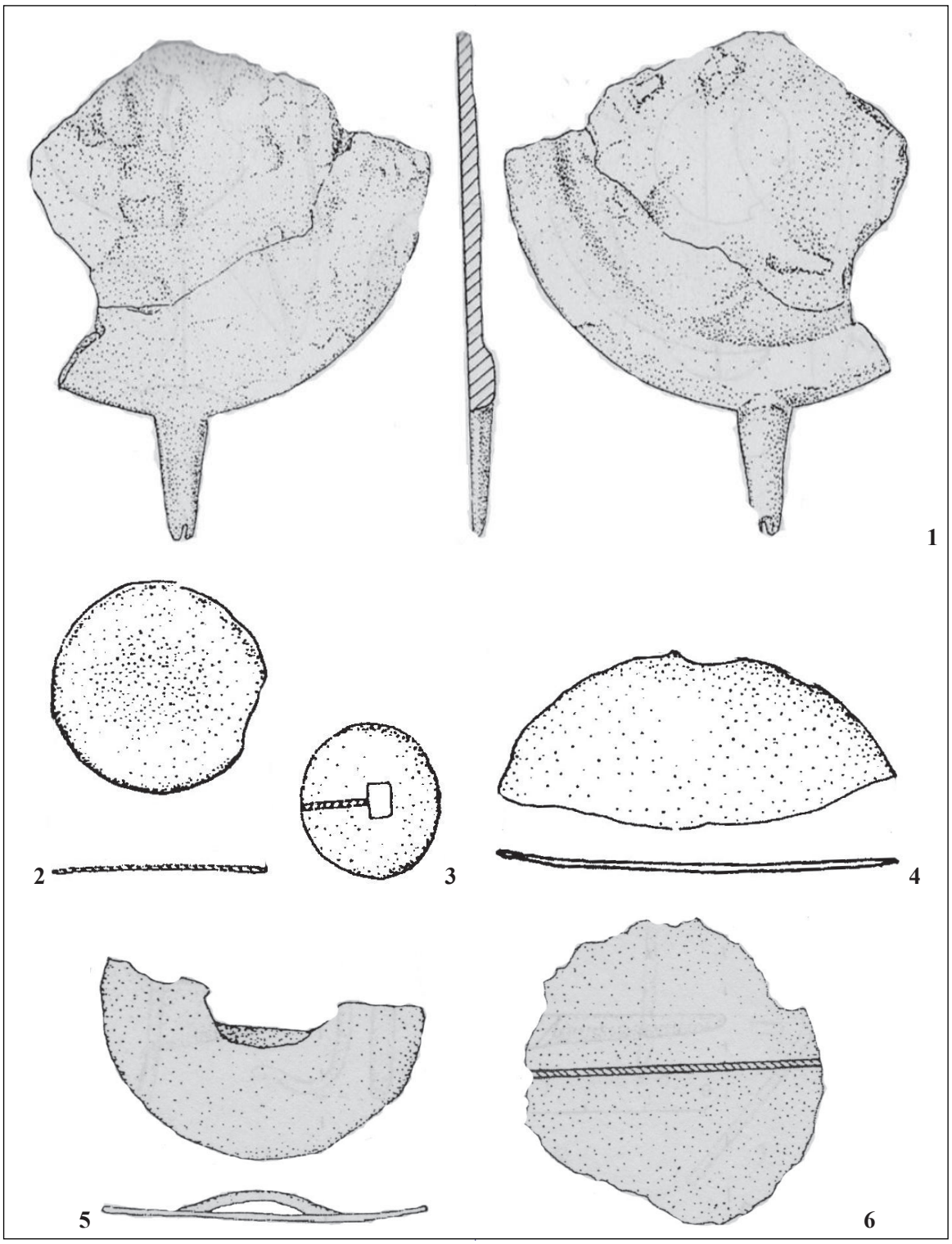

Fig. 2 – Mirrors: 1-6 = Poiana (*Piroboridava*) (after Vulpe, Teodor 2003). Different scales.

bled us to say that the burials with complete mirrors from Enisala and Nuntaşi are unitary concerning their chronology[15].

For the Geto-Dacian area on the left bank of the Danube, the oldest mirrors were documented in the necropolis from Zimnicea (Teleorman County)[16]. We refer here to objects made of bronze, of the 4th-3rd c. BC, « *avec des trous pour les rivets qui le fixaient au manche, lequel s'est conservé (en fer) en un seul cas* » (Fig. 4/1-2, 4)[17]. This type of item, with rather large dimensions (*Burial C7M4*: length = 21.5 cm, diameter = 13.3 cm[18], Fig. 4/4; *Burial C10M74*: diameter = 9.2 cm[19], Fig. 4/2; *Burial C20M1*: diameter = 8.7 cm[20], Fig. 4/1),

[15] Măndescu 2010, 284.

[16] Alexandrescu 1980, 24, 26, 29, 41; Babeş *et alii* 2009, 232.

[17] Alexandrescu 1980, 52.

[18] Alexandrescu 1980, 24, fig. 44/6.

[19] Alexandrescu 1980, 29, fig. 44/7.

[20] Alexandrescu 1980, 41, fig. 44/8.

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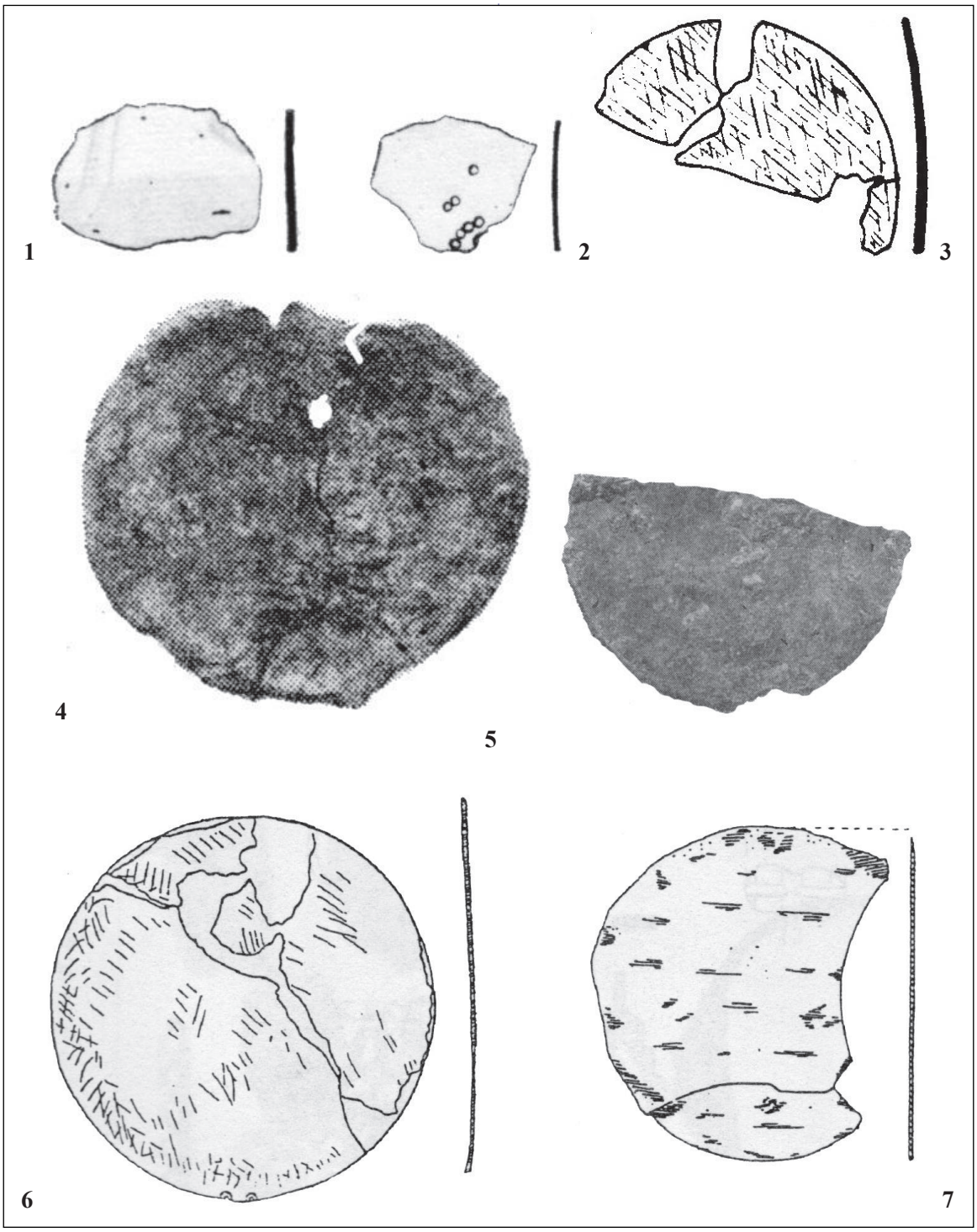

Fig. 3 – Mirrors: 1-6 = Ocniţa (*Buridava*): (1-2, 4-6 after Berciu 1981, 3 after Berciu *et alii* 1988), 6 = Tilişca, 7 = Pecica (both after Rustoiu 1996). Different scales.

comes from the Greek cultural milieus across the Danube[21]. Recent investigations resulted in the recovery of another bronze item of the same kind[22].

Also, to the 4th-3rd c. BC belonged a "Greek-Scythian" mirror (Fig. 5/5)[23] recovered in 1989 by Constantin Hălcescu from the zone of Olteniţa-*Valea Mare/Puţul de Cărămidă*, where, very probably, the works undertaken for the *Bucureşti-Dunăre* Channel had resulted in the destroying of a tumular necropolis. The item was complete, made of bronze, had a total length of 22.5 cm including the handle and a diameter of 15 cm.

About mirrors of the 3rd-2nd c. BC it could be also discussed in the case of the settlement from Cucorani (Botoşani County) while the archaeological investigations also resulted in the discovery of a bronze mirror, of considerable dimensions, with

[21] Babeş 2000, 225.

[22] Babeş *et alii* 2009, 232. More information was offered to us by Anca Ganciu, to whom we express our gratitude, on this occasion.

[23] Şerbănescu 1998, 259, figs. 174/1 = 177/2.

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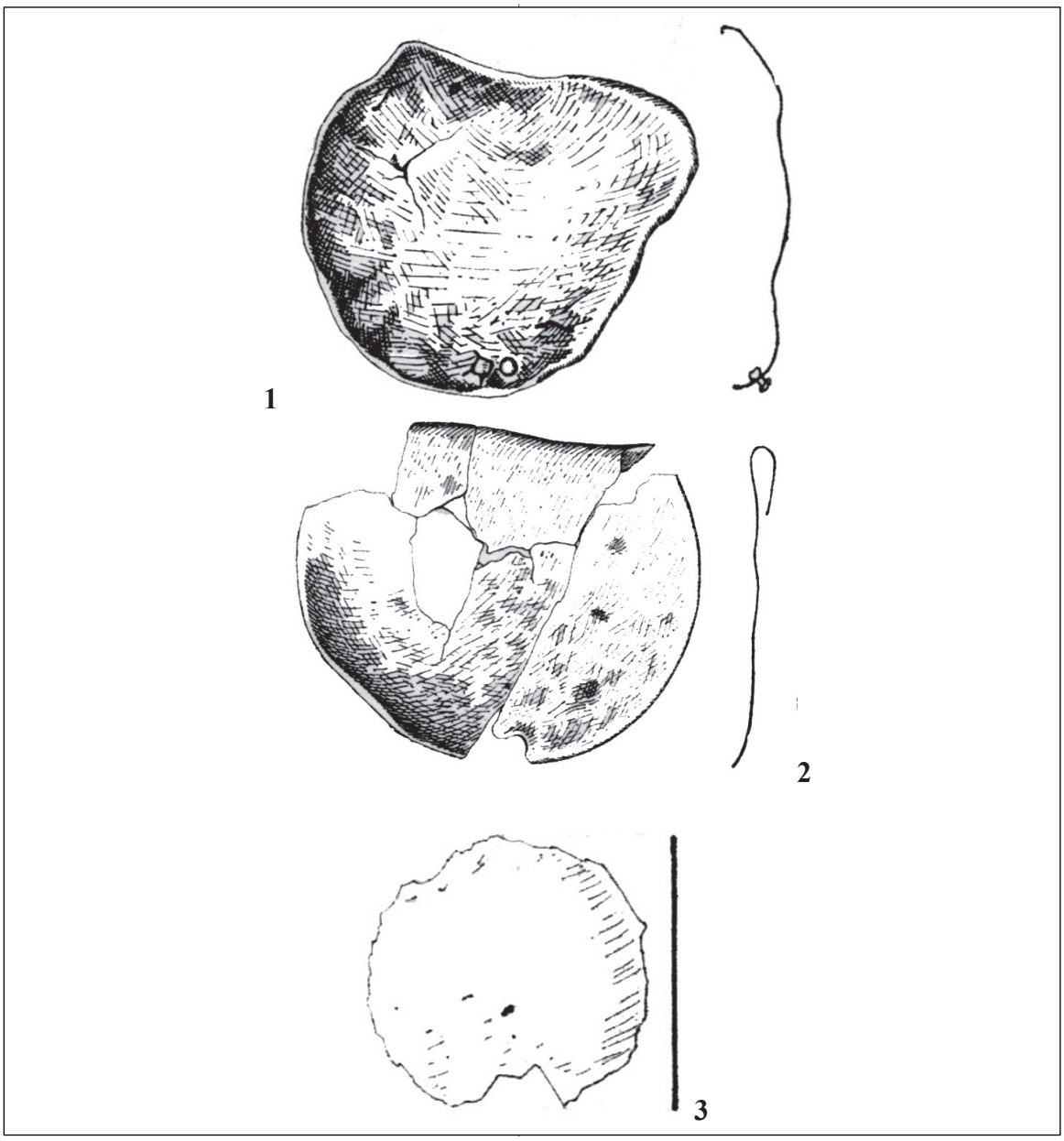

Fig. 4 – Mirrors: 1-4 = Zimnicea (after Alexandrescu 1980). Different scales.

handle (Fig. 5/7)[24], "*of a Hellenistic type, which could have been an import from the north-Pontic regions..., but it could have also been made in some of the local workshops*"[25]. This latter statement we consider to be a very interesting one.

The number of mirrors from the Geto-Dacian settlements increased in the time span between the 2nd c. BC. - 1st c. AD. This fact has been confirmed by a series of finds made in the extra-, but also intra-Carpathian regions. Among these, we could include the older investigations in the *Dava* from Radovanu-*Gorgana a Doua*. There, three mirror fragments had been discovered. Two of them had extremely small dimensions. In turn, in the *Dwelling no. 13*, besides pottery and objects made of bone and metal, a big mirror fragment could be also recovered. This proofs that the respective object was a disk-shaped one (diameter of about 6 cm), and was made of a "*white metal*" (Fig. 1/1)[26].

The new research had permitted us to recover from the *Annexe construction no. 1* at the North end of the *Trench no. XXIII*[27], three moulding valves for making mirrors[28]. We had considered the construction as an annexe, because it was different by the small amount of the construction materials remains (adobe), as well as other archaeological

[24] Teodor 1975, fig. 30/1.

[25] Teodor 1999, 85.

[26] Şerbănescu 2008, 181, fig. 116/3.

[27] Şerbănescu *et alii* 2012a, 105. The trench had been placed in the south-eastern side of the site. Right there, in the □ 8-9, it was discovered the *House no. 24*, inside which, *in situ*, it could be observed a part of a storage vessel. Other two such recipients had been identified in □ 2-3 and 12, see Şerbănescu *et alii* 2012b, 69, figs. I-VI.

[28] Şerbănescu *et alii* 2005, 287.

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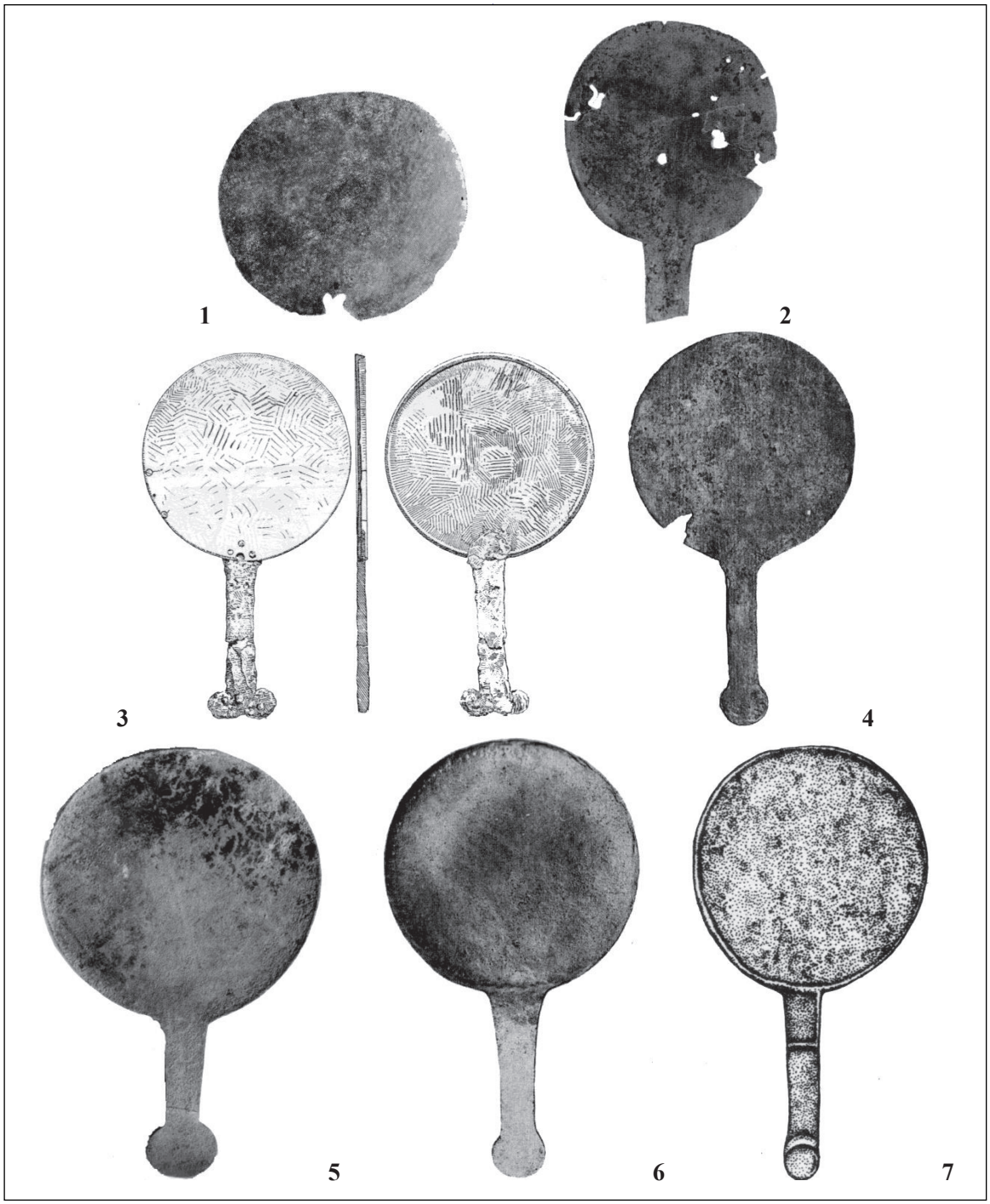

Fig. 5 – Greek mirrors: 1-2, 6 = Enisala (after Simion 1971 & Simion 1977), 3 = Cernavodă (after Berciu 1957), 4 = Nuntaşi (after Rădulescu 1961), 5 = Olteniţa (after Şerbănescu 1998), 7 = Cucorăni (after Teodor 1975). Different scales.

traits, compared with the dwellings that could be studied along the years within the *Dava*[29].

The first of the valves was made of a reddish gritstone, with big quartz grains in its composition, being brittle, with a trapezium shape, a height of 10.25 cm, and its two sides of 8.08 and 7.18 cm. The thickness of the valve is of 1.71 cm. The shape inside which the moulded metal had been poured had a circular shape, with a height 2 mm, and a diameter of 7.32 cm (Fig 1/4). On its small side, the valve had a pouring mouth. On its back side, it was very well polished.

The second moulding valve was made from the same rock type like the previous one, with a height of 10.43, a width of 8 cm and a small side of 7.48 cm. The thickness of the valve was of 1.58 cm. The form proper for pouring the mirror had a diameter of 5.26 cm (Fig 1/3), while its depth was of 0.22 cm.

The last one of the valves was made in good quality sandy gritstone and had pouring mouths on both sides. The valve has the following dimensions: the height of 9.30 cm, the sides of 9.53 cm

[29] Şerbănescu *et alii* 2012a, 107-109 with lit.

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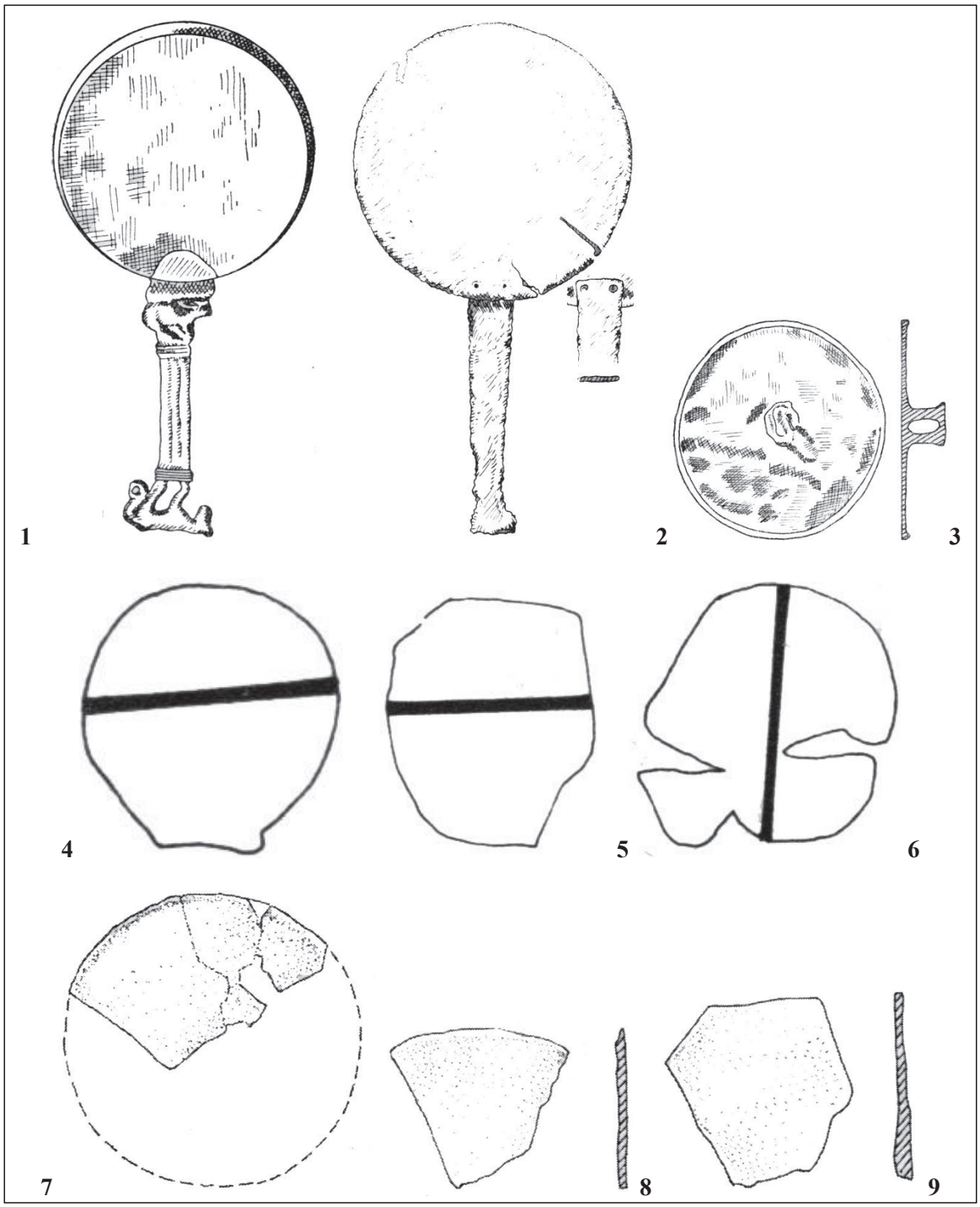

Fig. 6 – Mirrors: 1 = Jacu, 2 = Cipău, 3 = Comlod (all three after Vasiliev), 4-6 = Brad (after Ursachi 1980), 7-9 = Pietroasa Mică-*Gruiu Dării* (after Sîrbu, Rustoiu 2005). Different scales.

and 8.60 cm, while its thickness reached 3.45 cm. Both on its front and back sides there were forms in which mirrors could be moulded. On the front side, the diameter of the form reached 7.50 cm, with a depth of 2.3 mm, while that on the back side had a diameter of 5.7 cm and a depth of 2.05 mm. As on both sides of the valve there were places for moulding, this is a hint which shows that the mould for mirrors was a bivalve one.

A study exclusively dedicated to the mirrors in the territories of the Getic and Dacian populations has not been published until now. Still, this topic was approached more intensely for the first time by Ioan Glodariu, when he discussed about "*The commercial relations of Dacia with the Hellenistic and Roman world*". He conceived a catalogue of the finds, showing that most of the mirrors from the Geto-Dacian space could be assigned to the 2nd c. BC – 1st c. AD[30]. This type of toilet object

[30] Glodariu 1974, 84-85, 249-250, with lit.: he enlisted the finds from *Bâtca Doamnei* (Neamţ County), Braşov (Braşov County), Costeşti, Grădiştea Muncelului, Pecica (Arad County; fig III/7), Piatra Şoimului/Calu (Neamţ County), Poiana, Popeşti-*Nucet* (Giurgiu County), Sărăţel (Bistriţa Năsăud County), Târgu Ocna (Bacău County),

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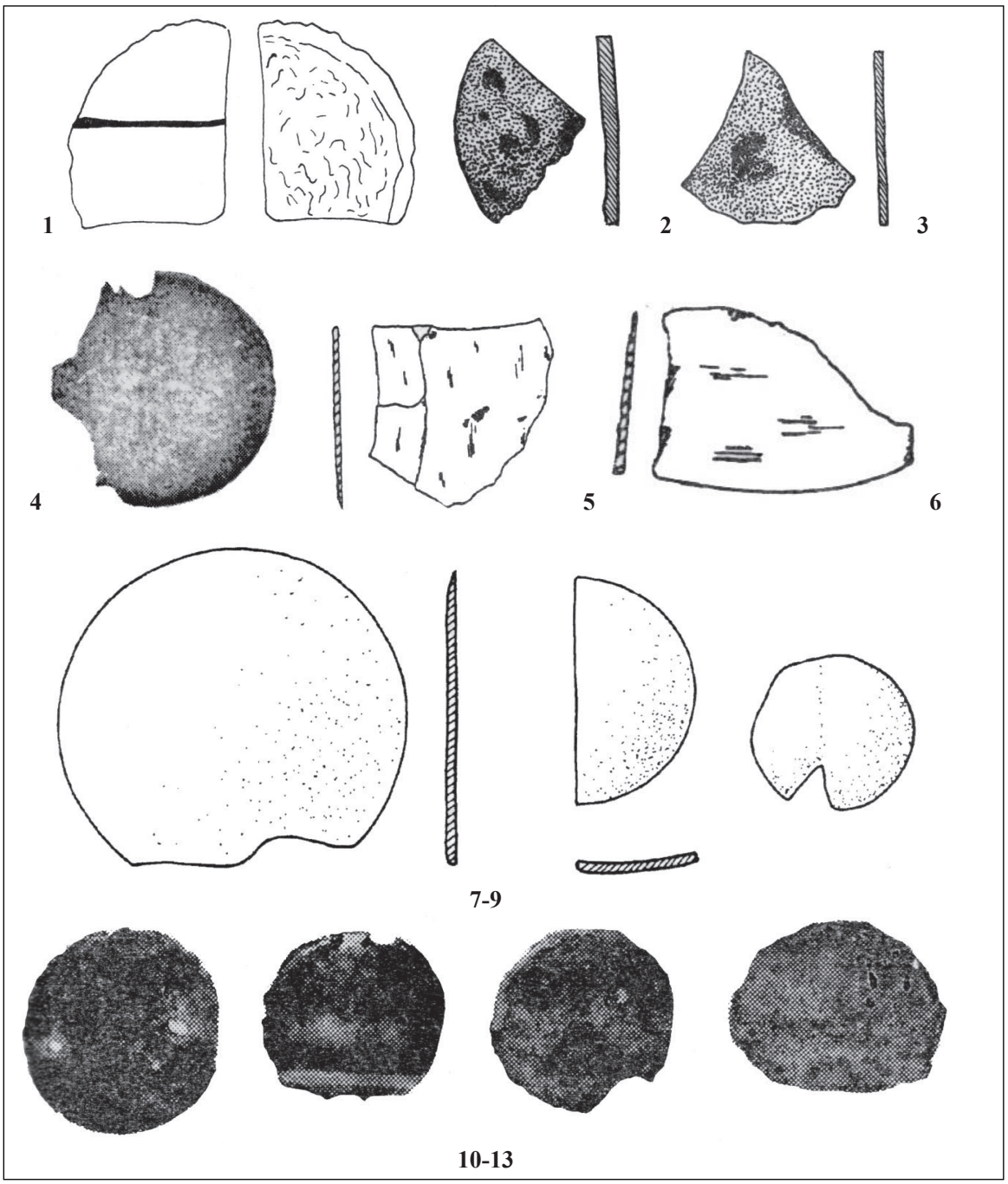

Fig. 7 – Mirrors: 1 = Popeşti-*Tumulus no. 2* (after Vulpe A. 1976), 2-3 = Grădiştea (after Sîrbu 1996), 4 = Cândeşti (after Bobi 1999), 5-6 = Tilişca (after Rustoiu 1996), 7-9 = Mereşti (after Crişan 2000), 10-13 = Răcătău (after Căpitanu 1989). Different scales.

also caught the attention of Aurel Rustoiu[31] and Constantin Augustus Bărbulescu[32]. In the opinion of the first specialist, "*Chronologically speaking, the mirrors from Dacia occurred at the end of the 2nd century B.C. and would have been used during the entire period between the 1st century B.C. and the 1st century A.D. Morphologically speaking, the mirrors of Dacia had small dimensions, sometimes being endowed with handles... Concerning the metal they were made of, the mirrors had been considered in the specialized literature as being made of "bronze" or "white metal*"[33]. Bărbulescu considered that "*the mirrors are present in a relatively small number on the territory of the Meridional Dacia*", as they "*were products of the Italic and Oriental workshops*"[34].

Without going into details about all the mirrors found in the Geto-Dacian milieu, we would insist upon some of them, which we consider to be more significant. Therefore, about 60 km upstream from

Tinosu (Ialomiţa County), Zimnicea (Teleorman County).

[31] Rustoiu 1996, 169.

[32] Bărbulescu 2014, 71, Annexe 10 and pls. XLIX, LXIV, LXVIII.

[33] Rustoiu 1996, 169.

[34] Bărbulescu 2014, 71.

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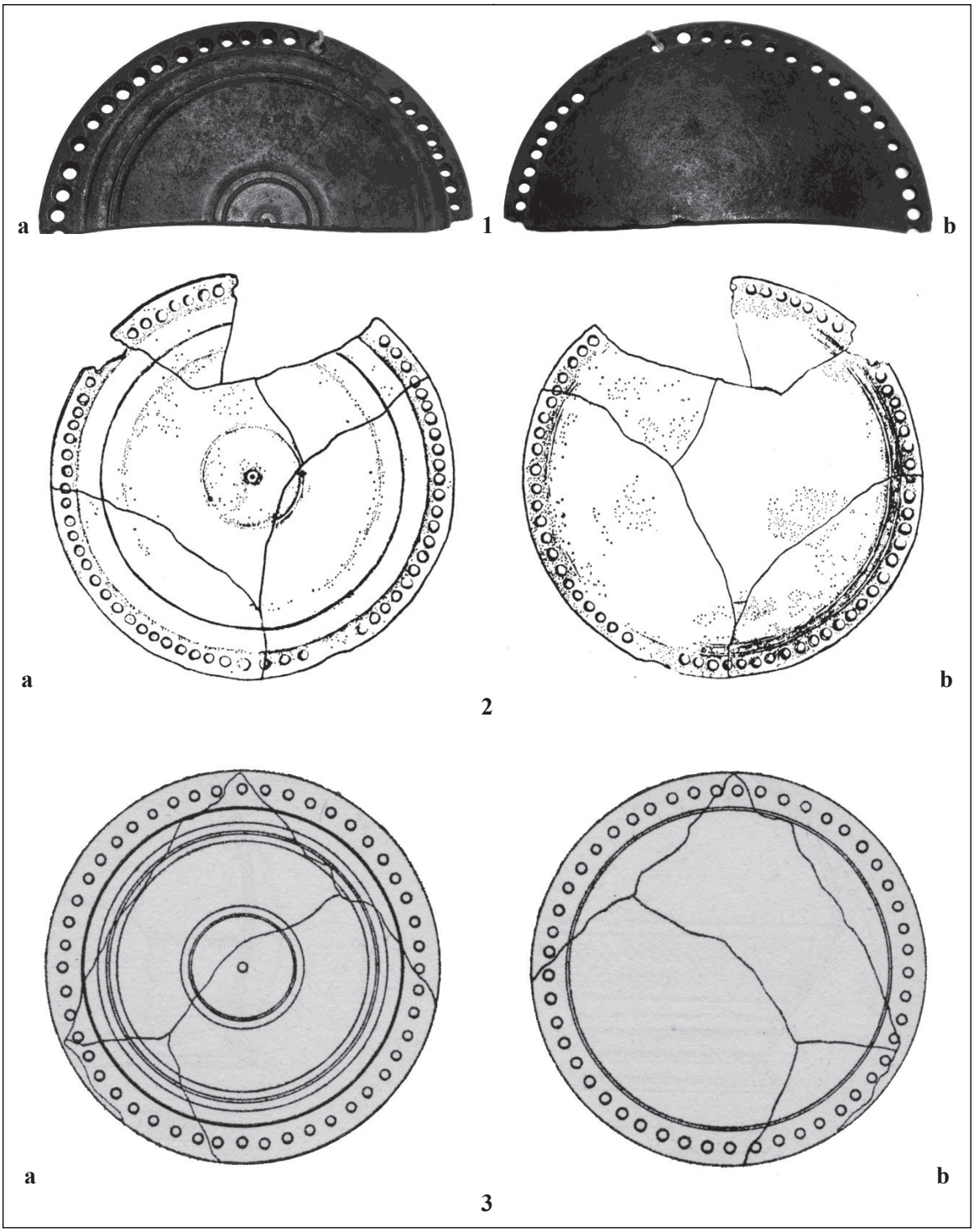

Fig. 8 – Roman mirrors: 1a-b = Ocniţa (photo I. Tuţulescu, 2015), 2 = Popeşti-*Nucet* (after Turcu 1979), 3 = Locusteni (after Popilian 1980). Different scales.

Radovanu-*Gorgana a Doua*, also on the right bank of the Argeş River, on a foothill which strongly protrudes into the river valley, we could find the important *Dava* from Popeşti-*Nucet*. The older investigations resulted in the discovery of some complete and fragmentary disk-shaped mirrors by the collective coordinated by Radu Vulpe[35]. We should also emphasize here that, during the archaeological campaigns of the '30s-'40s of the past century, Dinu V. Rosetti found another mirror. Unfortunately, the information about the exact place of this find is missing[36]. The respective item is to be found today in the *Collection of the Bucharest City Museum*. The mirror, made of bronze, is almost entirely preserved and, according to Mircea Negru, "*it has a circular body with 92 millimetres in diameter and perforations on the rim. On its face there are two incised circles, on the back, four in relief*

[35] Vulpe R. 1959, 314; Vulpe R. 1966, 36. Unfortunately, there were not provided too many details and illustration. It was only mentioned that the complete mirror had a diameter of 6.3 cm.

[36] Turcu 1979, 101, fig. 14; Tezaur 1998, 12, no. 109.

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or incised concentric circles and a little thickness. It has a gray silver surface because it contains tin or is tinned" (Fig. 8/2)[37]. According to Mioara Turcu, this mirror[38], as well as other objects made of bronze, considered as being imports, would have been dated in the 2nd – 1st c. BC. Negru in his turn[39], based upon the analogies with Roman mirrors from Dacia (like, for instance, Locusteni-*Burial no. 220*[40]; Fig. 8/3), Pannonia, Thracia and Dalmatia, considered that the respective object should be assigned to the 1st – 2nd c. AD. In fact, this is also plausible for Popeşti-*Nucet*, if we take into account that the respective *Dava* had been used until the beginning of the 2nd c. AD.

It is also significant that, in the tumular necropolis from Popeşti, more exactly from the *Tumulus no. 2*, it could be recovered a fragment « *d'un miroir en bronze* » (Fig. 7/1)[41]. The tumulus had belonged, as established by Alexandru Vulpe, to the 1st c. BC. This find attested that some of the Getic people from Popeşti, probably the rich ones, had used the mirrors in their quotidian life, as well as grave goods.

South-west from Radovanu, during the terrace making from Greaca since 1962, on the spot "*Părul*", resulted in the discovery of a Getic settlement[42]. Unfortunately, some interventions destroyed this site. Barbu Ionescu, at that time Director of the Museum from Olteniţa, managed to recover, among others, a mirror fragment. In his opinion, based upon a written note in the museum's book, this item should be assigned to the 3rd – 4th c. AD. His datation is obviously an erroneous one, while the disk-shaped mirror made of bronze (diameter = 5.4 cm; Fig. 1/1), with the front side well polished and the back side wearing the irregular traces of the mould for pouring the metal (Fig. 1/1b) should be included amongst the items of the 2nd – 1st c. BC.

West from Radovanu, Popeşti and Greaca, at Zimnicea, in burials of the 2nd – 1st c. BC, disk-shaped mirrors of small dimensions compared to those of the 4th – 3rd c. BC were discovered. Such an item, « *miroir en métal blanc* » (Fig. 4/3)[43], was part of the grave goods of *Burial C10M21*.

In eastern Muntenia, in the *Dava* from Grădiştea (Brăila County), "*fragments of at least 5 objects, all of them made of bronze and having small dimensions*" were identified[44]. Two of the fragments were discovered in the *Pit no. 72* (Fig. 7/2-3)[45], both coming from mirrors moulded in the shape of circular bronze foils. Other fragments were documented in the *Pit no. 160*[46].

In the fortified enclosure from Pietroasa Mică-*Gruiu Dării* (Buzău County), during the different archaeological campaigns, several mirror fragments were discovered. The older investigations had resulted in the recovery of four fragments, some of them in *Trench no. 2*[47], *Complex no. 1-Deposition no. 1*, dated at the middle/second half of the 1st c. AD[48]. More recently, in the *Complex no. 18*, which was dated in the 1st c. BC, a mirror portion was discovered (Fig. 6/7)[49]. One such fragment (Fig. 6/8-9) was also recovered in each of two other complexes (namely *nos. 2* and *35*), yet, assigned to the first half of the 1st c. AD[50]. All the items were of the type of the disk-shaped objects, of small dimensions and with diameters of about 4.5-6 cm[51].

The investigations from Oltenia, at Ocniţa (*Buridava*; Vâlcea County) enabled the scientists to recover several mirror fragments, all of them being "*Roman or Hellenistic-Roman imports*", made of "*white metal*", which rendered the "*disk-shaped mirror type*" and belonged to the 2nd c. BC – 1st c. AD[52]. They were found both in the archaeological layer, as well as in different complexes (dwellings and pits). The mirrors are normally of small dimensions, of up to 5-6 cm in diameter (Fig. 3/1-2, 4-5)[53]. Two of these items had been decorated with incised circles (Fig. 3/2, 4)[54]. On the other hand, it was also discovered a mirror with a large diameter,

[37] Negru 2004, 279, fig. 1.

[38] Turcu 1979, 104.

[39] Mirrors of Riha *variant B*, see Negru 2004, 280 with lit.

[40] Popilian 1980, 96, pl. XXX/5.

[41] Vulpe A. 1976, 198, fig. 6/25.

[42] Unfortunately, at that time, an entire line of archaeological sites had been completely, or strongly affected. The subsequent excavations (see Sîrbu *et alii* 1996), as well as our field and archive investigations could not result in an exact localisation of the spot "*Părul*".

[43] Alexandrescu 1980, 26, figs. 44/9 = 76/17.

[44] Sîrbu 1996, 36.

[45] Sîrbu, Anastasiu 1983, 172, fig. 14/3; Sîrbu 1996, 100, pl. 122/14-15.

[46] Sîrbu 1992, 37; Sîrbu 1996, 41.

[47] Dupoi, Sîrbu 2001, fig. 27.

[48] Dupoi, Sîrbu 2001, 21, fig. 127.

[49] Sîrbu, Rustoiu 2005, 41, 71, fig. 61/3: *Complex no. 18* = 50-1 B.C,

[50] Sîrbu, Rustoiu 2005, 41, 66, figs. 50/10, 68/5: *Complex no. 2* = 10-40 AD, *Complex no. 35* = 25-100 AD.

[51] Dupoi, Sîrbu 2001, 40; Sîrbu, Rustoiu 2005, 71.

[52] Berciu 1981a, 50-51; Berciu 1981b, 56.

[53] Berciu 1981a, fig. 22/3, pls. 36/24, 38/6, 48/3.

[54] Berciu 1981a, 51, pl. 36/25; Berciu *et alii* 1988, 174, fig. 3/7: from *Dwelling no. 9/1987*, that belonged to the *Level IIb*, dated at the end of the 1st c. BC – beginning of the 1st c. AD.

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of 8 cm, in *Burial no. 381* (Fig. 8/1a-b)[55]. This object strongly resembles with the mirror decorated with a concentric circle made of smaller circles on its edge, as well as the incised circles on its back side discovered at Popeşti-*Nucet*.

In Moldova, in the *Dava* from Răcătău (Bacău County), until 1976, had been discovered 13 "*bronze mirrors covered with a foil of white metal. They were disk-shaped and had no diameter over 4 cm*"[56]. The subsequent investigations enriched the number of complete or fragmentary items, "*made of common metal or bronze, with a rounded shape*" getting in 1989 at more than 20 (Fig. 7/10-13)[57].

Mirrors, which numbered more than 30 complete items, but mostly fragmentary ones, "*with a rounded shape, and endowed on the lower part with a small extension, probably introduced into a wooden or bone support, represented by the handle*", were found both in the *Dava* and in the open settlement, being either dwellings, pits or the archaeological layer from Brad (Bacău County)[58]. These had been moulded from a "*whitish material, silver or bronze*", having the dimensions between 3.2 and 5.3 cm, with a thickness of 0,01-0,02 cm (Fig. 6/4-6)[59]. They both belonged to Dacian levels, being dated in the 1st c. BC – 1st c. AD.

The research undertaken in the *Dava* from Poiana (*Piroboridava*; Galaţi County) resulted in the discovery of mirrors in a "*relatively large number in the last Geto-Dacian level*" (2nd – 1st c. BC). According to Radu Vulpe and Silvia Teodor, these could be parted into two categories. The first one is represented by the mirrors which are "*small and thin, made of bronze, covered with a pellicle of white metal, the respective material being very brittle the fragments have small dimensions*"[60]. They are disk-shaped, with a diameter of 2-5.5 cm (Fig. 2/2-4, 6), a single item having a handle on its back (Fig. 2/5)[61].

The second type had larger dimensions (diameters between 9-16 cm) and was thicker, being endowed with an "*appendix for fixing the handle*"[62]. One of these mirrors dated in the 1st c. AD, made of bronze, but plated with silver, "*had on its back a decoration rendering two personages within a circular frame*" (Fig. 2/1)[63]. The handle had a truncated shape and had been pierced[64].

From a "*white metal*" it was also made the disk-shaped mirror (in a fragmentary condition), assigned to the 1st c. BC, discovered at Cândeşti (Vrancea County) (Fig. 7/4)[65]. A mirror handle, with a length of 14,8 cm and moulded in bronze, belonging to the 2nd – 1st c. BC, was found at Cârlomăneşti (Buzău County)[66].

Mirrors of smaller dimensions, which belonged to the 2nd – 1st c. BC, were also found in the Getic sites from Dobroudja. Such an example could be the site from Satu Nou-*Valea lui Voicu* (Constanţa County), where, from the *Level II* it was recovered a fragment of a mirror[67], showing that the item had a diameter of about 4.5 cm.

Another mirror, strongly affected by fire, was discovered by Gavrilă Simion in the Getic cremation burial from *Tumulus no. I* at Murighiol (Tulcea County), being assigned "*towards the second decade of the 2nd century B.C., if not towards the end of the first quarter of that century*"[68]. This object made of bronze, which most probably had a diameter of 13 cm, had been "*introduced into a bronze frame and endowed with an iron handle rounded in cross-section and fixed on the plaque by two rivets. This detail could show the possibility of passing this mirror through a reparation workshop*"[69].

In Transylvania, besides the objects mentioned by Ioan Glodariu, there are also to be mentioned those from Tilişca (Sibiu County; Fig. 3/6, 7/5-6)[70], Şimleul Silvaniei (Sălaj County)[71], or Grădiştea Muncelului-*Valea Largă*[72]. If the other items, the same like other mirrors discovered in the region of Grădiştea Muncelului, are of small dimensions, the one on the spot "*Valea Largă*" had a diameter of 15 cm and a thickness of 2 mm, being part, according to Gelu Florea, of the *Group B* established

[55] Berciu 1981a, fig. 22/3.

[56] Căpitanu 1976, 65.

[57] Căpitanu 1989, 103, fig. 11/1-5.

[58] Ursachi 1995, 243.

[59] Ursachi 1995, pls. 209/27-32, 34-37, 332/27-30

[60] Teodor *et alii* 1999, 30-31, figs. 17/1-18, 18/1-9, 19; Vulpe R., Teodor 2003, 67, figs. 133/1, 3-18, 134/1-5, 7-9.

[61] Vulpe R., Teodor 2003, 67, fig. 134/2.

[62] Vulpe R., Teodor 2003, 67, figs. 134/6. The existence of the handle had been proven by the presence, towards the edge, at equal distances, of three fixing perforations (see Vulpe R., Teodor 2003, 246, *Catalogul descoperirilor. Obiecte vestimentare şi podoabe no. 675*).

[63] Vulpe R., Teodor 2003, 67, fig. 135.

[64] Vulpe R., Teodor 2003, 247, *Catalogul descoperirilor. Obiecte vestimentare şi podoabe no. 680*.

[65] Bobi 1999, 183, pls. CV/11 = CVI/11.

[66] Bobi 1999, 183, pls. CVII/1 = CVI/14.

[67] Irimia, Conovici 1989, 148, fig. 31/15; Irimia 2007, 166.

[68] Simion 2003, 351.

[69] Simion 1995, 268, fig. 3b; Simion 2003, 330, fig. 3b.

[70] Lupu 1989, pl. 27/14-17; Rustoiu 1996, 169, fig. 107/1-3.

[71] Rustoiu 1996, 169; Pop 2013, 231.

[72] Florea 1993, 175, fig. 1/2.

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by Lloyd-Morgan[73]. In the east of the province, mirrors of small dimensions had been documented, without handles, which were used between the 1st c. BC – 1st c. AD, like the items from Mereşti (Harghita County; Fig. 7/7-9)[74], or those from Sighişoara-*Wietenberg*[75].

As it results from the above lines, the majority of the specialists consider the mirrors from the Geto-Dacian milieu of the 2nd c. BC – 1st c. AD as being imported products. Radu Vulpe and Silvia Teodor pointed out that the mirrors had been "*documented in Geto-Dacian settlements and necropolis in an area in the proximity of Dacia, especially in the North-Pontic regions*"[76]. The same specialists considered that the mirrors "*are imported objects from the Mediterranean zone, most of them being of Hellenistic origin*"[77]. Viorica Crişan[78] showed that the mirrors are "*imported, probably, from the Greek or Roman centres situated in the vicinity of Dacia, where it is assumed that they could have been produced*". "*The mirrors are part of the numerous Roman imports that become more intense in the 1st century A.D., especially in its second half*", was the opinion of Dumitru Berciu[79]. He "*assumed that the mirrors from Ocniţa were products of the Italic workshops*"[80]. Ioan Glodariu had considered that the mirrors were "*produced in different centres of the Classical world*"[81]. Mircea Babeş showed that "*Their production centres might have been situated in the Greek world, in the Balkan Peninsula and the Pont, but it is not excluded their Italic origin*"[82]. Gavrilă Simion, when discussing about the items revealed by the sites of Dobroudja[83], especially that of Enisala, pointed out that « *la liste des objects grecs d'importation doit inclure aussi... les miroirs de bronze de différentes tailles* ». Valeriu Sîrbu and Aurel Rustoiu emphasized that *"the bronze mirror of small dimensions, of the type discovered also at Gruiu Dării"*, had come *"from the Greek or Roman milieu"*[84].

A dissonant note among archaeologists was Silvia Teodor, who, when discussing about the object from Cucorăni, admitted, as shown above, that this might have been done in a local workshop. Unfortunately, the mirror from this site is obviously of a Greek origin, possibly created in one of the North-Pontic workshops (Olbia?). But, the statement of Silvia Teodor offered us the possibility to make an interesting discussion that we will present in the following lines.

The finds from Radovanu-*Gorgana a Doua*, the presence of the moulds for mirrors of small dimensions in the *Dava*, there are proofs that a workshop had functioned, which had produced such toilet items. That an intense metallurgical activity existent in this settlement between the 2nd – 1st c. BC could be also documented by other finds. Therefore, the inventory and the fittings (two hearths) inside *Construction No. 1/1971* (with the dimensions of 8.5x6 m), documented in *Trenches no. II*, *VI*, *X* and *F*, had showed us that this was a jeweller workshop[85]. Besides, two pits, *nos. 33* and *34*, situated near the central hearth in the workshop, by their content, enabled us to speak about annexes of a construction of metal processing[86].

When considering the spot where the mirror moulds have been found, an area without other traces of metallurgical activity, the same as the location of the jeweller workshop, namely the south-eastern part, respectively the north-western perimeter of the *dava*, with a distance of about 55 m between them, it is hard to say that the moulds were part of the utensils kit of the jeweller.

As in the case of making other bronze or silver objects, the mirror moulding, even if this was a "*specialized*" work, could be also performed by local Getic/Dacian craftsmen. At the same time, it cannot be abandoned the idea that these craftsmen could have been itinerant ones, coming from South of the Danube, from the Greek and/or Roman milieu. We should not forget that the fortification system from Radovanu, comprising those two *dava* on the "*Gorgana a Doua"* and "*Gorgana Întâi*", was situated close to the river, therefore easily accessible to the itinerant craftsmen coming from the south.

Thus, in the recent stage of the research about this issue, we could reveal several periods related to the origin of this toilet item for the population in Dacia:

- Imports from the Scythian and Greek work-

[73] Florea 1993, 175: "*this type of mirror had been mostly used in the Hellenistic époque until towards the beginning of the 1st century A.D.*".

[74] Crişan, Ferenzi 1994, 387, pls. V/12, 16, VIII/7-8; Rustoiu 1996, 169, fig. 107/5-7; Crişan 2000, 141, pl. 111/16-18; Chirilă, Crişan 2000, 141, pl. 40/16-18..

[75] Horedt, Seraphin 1971, fig. 64/2-4; Rustoiu 1997, 43.

[76] Vulpe R., Teodor 2003, 67.

[77] Vulpe R., Teodor 2003, 67.

[78] Crişan 2000, 141.

[79] Berciu 1981b, 51.

[80] Berciu 1981b, 95.

[81] Glodariu 1974, 249.

[82] Babeş 2000, 225.

[83] Simion 1985, 278; Simion 2003, 325.

[84] Sîrbu, Rustoiu 2005, 41.

[85] Şerbănescu 1985, 22; Şerbănescu 1998, 107-113; Şerbănescu *et alii* 2012a, 109.

[86] Şerbănescu 1998, 127-128.

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shops, especially those in the north-Pontic region – 5th – 3rd c. BC;

- Imports from the Hellenistic and Roman milieu – 2nd c. BC – 1st c. AD – both mirrors with large and small diameters;
- Local products are also possible, these being the result of the metallurgical activity of itinerant craftsmen, coming from the Geto-Dacian space, but also of other local ones 2nd c. BC – 1st (2nd?) c. AD.
- Also, we should emphasize that, at the beginning of the presence of the mirrors in the Geto-Dacian space, they were predominantly present as part of the funerary goods. Subsequently, they could be also recovered from the settlements, both in the complexes (constructions, pits) and in the archaeological layer. Mirrors were found, as well, in special complexes, like the fortified enclosure from Pietroasa Mică-*Gruiu Dării*.

The tradition of using the mirrors had been continued by the Geto-Dacians from Muntenia during the Roman period (2nd – 4th c. AD). Gheorghe Bichir had noted that "*the alchemists of the 2nd-3rd centuries A.D. had surpassed their predecessors from the Latène period, concerning their technological knowledge*"[87]. This fact has been proven, in his opinion, by the existence of some "*workshops for mirror moulding*", like the one from Bucureşti-Militari-*Câmpul Boja*, where "*people specialized in this field had existed*". There, it was discovered a bivalve mould for Sarmatian type mirrors, made of clayish stone, with a *tamga* inscription, as well as fragments from other three such objects[88]. In the opinion of the mentioned specialist, here had been moulded "*mirrors of Sarmatian-Carpic type*". The craftsmen, who worked in the workshops, could be "*either Sarmatians, or Dacians*"[89]. The fact that at Bucureşti-Militari-*Câmpul Boja* had been done items of this category, had been confirmed during the archaeological campaign of 1996 by the discovery of a mirror fragment that "fits" into the complete mould[90]. According to Mircea Negru, "*The presence of this mould, associated with that of some Sarmatian vessels and of (a) flower-shaped appliqué*", had enabled him to consider that "*for the bronze processing in this site Sarmatian craftsmen had been specialized*"[91]. Mirrors had been also found in other Daco-Roman settlements, or Chilia-Militari, like those from Bucureşti-*Străuleşti*, Mătăsaru, Târgşor[92] and Gropşani-*Zona puţului*[93].

Therefore, the "dilemma" about the origin of those who had worked the mirrors in the sites from North of the Danube, cannot be applied just for the Geto-Dacians in the period between the 2nd c. BC – 2nd c. AD, but even subsequently. Still, for the Daco-Roman period from Muntenia things seem to be more clear: the moulding of such a toilet object had been done by the Sarmatian craftsmen. We should not forget that they had often included them among the grave goods of their burials. Recent studies had shown that such toilet objects had been documented in several sites[94]. Of course, mirrors had been also recovered from other regions of Romania[95]. Most probably, the mirrors are "*an indicator of the female sex*"[96].

Could this toilet item had been also used by the female sex in the case of the Geto-Dacians, or they were part of the unisex category? For the moment it is hard to give a certain answer to this question.

[87] Bichir 1984, 25.

[88] Bichir 1973, 109; Bichir 1984, 21, pl. LIV/1.

[89] Bichir 1973, 109.

[90] Negru 2000, 120, pl. 102:4.

[91] Negru 2000, 120.

[92] Bichir 1984, 25.

[93] Popilian 1998, 101, pl. 63/the area of the *Well no. 5*.

[94] Oţa, Sîrbu 2009, 96-97, 104, 107, 122, figs. 14/6 = 15/3, 16/9 = 17/2, 20/1; Oţa *et alii* 2013, 333, figs. 2/3, 7/3, 8/6, 9/2; Oţa, Sîrbu 2014, 112-113, figs. 1/3, 2/3, 4/2, 6/1-28/1-4, 9/4, 10/9, 11/318/10, 19/732/3: Borduşelu, Brăila-*Radu Negru*, Bucu (*Burials nos. 6* and *8*), Bucureşti-*Dealul Piscului*, Călăraşi (*Burials nos. 1, 3, 6-7*), Chiscani-*Sat*, Ciulniţa (*Burial no. 1-B*), Drăgăneşti, Dridu-*Tell* (*Burial no. 2*), Dridu-*Sat* (*Burial no. 1*), Gălăţui (*Burial no. 2*), Grădiştea (*Burial no. 11*), Însurăţei-*Canalul de Irigaţie*, Luciu, Mărunţei, Mihail Kogălniceanu, Olteniţa-*Renie* (*Burials nos. 1* and *7*), Pietroiu, Ulmeni (*Burial no. 3*).

[95] Bichir 1973, 106-107, pls. CLXXIII/16, CLXXIV/1-6, CLXXV/1, CLXXXII/17: Poiana-Dulceşti, Silişte, Vârteşcoiu, Pădureni, Butnăreşti, Poieneşti, Dumitreştii Gălăţii.

[96] Oţa, Sîrbu 2014, 113. Gheorghe Bichir (1973, 110-111) shared the opinion that "*The mirrors had been worn probably by the more rich and coquette women of the Carpic society, like amulet-medallions, hung around the neck, with the decorated side (tamga) being visible and the polished one towards the body. At the same time, they had ,..., also a magical meaning, of protecting their bearer from the evil spirits, both during his life and after his death*".

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OBSERVATIONS ON THE SARMATIAN GRAVES IN WALLACHIA IN WHICH HANDMADE POTTERY WAS DEPOSITED

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Key-words: handmade pottery, Sarmatians, Wallachia, graves, grave goods.

Abstract: The present contribution attempts to outline the main coordinates of the handmade pottery deposit in the Sarmatian graves of Wallachia. The handmade pottery was discovered in 55 graves of Wallachia which were attributed to the Sarmatians. 11 graves of the 55 graves examined are isolated; the remaining 44 funerary structures originate from 23 groups. The age of the buried individuals is known only in the case of 35 graves of the 55 analyzed: 19 adults, 15 children, one teenager. The typology of the handmade vessels deposited in the Sarmatian graves in Wallachia is not very varied: jars (with seven sub-types), bowls, mugs, vessel with spherical body, perforated vessels. The handmade Dacian ceramic comprises mugs and lids. The vast majority of the graves (42) is characterized by the deposit of a reduced number of inventory items, ranging between one and three. Among the handmade vessels found in the Sarmatian graves in Wallachia, there are not only vessels characteristic for the discoveries attributed to the Sarmatians, but also vessels with analogies in the Dacian pottery (Râmnicelu M. 19, Mărițua M. 2) or the Przeworsk culture (Grădiștea-Coslogeni). The handmade pottery was discovered in 14 graves belonging to children. It is interesting to note the very low number of items in the vast majority of these graves: 12 graves with one or two grave goods. The relation between the graves determined or assumed as belonging to men and the handmade pottery seems to be rather occasional – only four graves, at least in the current stage of research. Although questioned by the existence of a very high number of undetermined graves in terms of the sex of the deceased (36), the relation between the handmade pottery and the graves belonging to women has other features than the ones noticed in the case of men's graves. Of the 19 funerary structures which benefit of the determination or the assumption of the sex of the buried individual, 14 belonged to women and only four to men. One last observation takes into account the dating of the graves in which handmade pottery was deposited. Such tombs are documented in all the stages of penetration of the Sarmatians in Wallachia: 13 burials in the first stage (starting with the last decade of the first century AD and the first decades of the following century), four graves in the second century AD, 32 funerary structures in the second stage (subsequent to the Marcomannic wars), two in the last stage (the end of the third century). A possible predominance of the custom to deposit handmade pottery in the graves in the second stage of penetration of the Sarmatians in Wallachia seems to be only an impression, easily explainable by the numerical imbalance documented in certain areas between the graves dated in the first stage of the Sarmatian presence in Wallachia and the ones of the second stage.

Cuvinte-cheie: ceramică lucrată cu mâna, sarmați, Muntenia, morminte, inventar funerar.

Rezumat: Contribuţia de faţă încearcă să contureze principalele coordonate ale depunerii ceramicii lucrate cu mâna în mormintele sarmatice din Muntenia. Ceramica lucrată cu mâna s-a descoperit în 55 de morminte din Muntenia care au fost atribuite sarmaţilor. 11 morminte din cele 55 analizate sunt izolate, iar restul de 44 de complexe funerare provin din 23 de grupuri. Doar în cazul a 35 morminte din cele 55 analizate se cunoaşte vârsta celor inhumaţi: 19 adulți, 15 copii, o adolescentă. Tipologia recipientelor lucrate cu mâna depuse în mormintele sarmatice din Muntenia nu este foarte variată: borcane (cu șapte sub-tipuri), castroane, căni, vas cu corpul sferic, vase perforate. Ceramica dacică lucrată cu mâna cuprinde ca tipuri căni și capace. Marea majoritate a mormintelor analizate (42) se caracterizează prin depunerea unui număr mic de piese de inventar, cuprins între una și trei. Printre recipientele lucrate cu mâna găsite în mormintele sarmatice din Muntenia se înregistrează nu numai vase caracteristice descoperirilor atribuite sarmaților, ci și recipiente cu analogii în repertoriul ceramicii dacice (Râmnicelu M. 19, Mărițua M. 2) sau în

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cel al culturii Przeworsk (Grădiștea-Coslogeni). Ceramica lucrată cu mâna s-a descoperit în 14 morminte aparținând unor copii. Interesant de remarcat este numărul foarte mic de piese al marii majorități a acestor morminte: 12 morminte cu una sau două piese. Relația dintre mormintele determinate sau presupuse ca aparținând unor bărbați și ceramica lucrată cu mâna pare să fie una mai degrabă ocazională – doar patru morminte, cel puțin în stadiul actual al descoperirilor. Deși pusă sub semnul întrebării de existența unui număr foarte mare de morminte nedeterminate ca sex al decedaților (36), relația dintre ceramica lucrată cu mâna și mormintele aparținând unor femei are alte caracteristici decât cele remarcate în cazul mormintelor de bărbați. Din cele 19 complexe funerare care beneficiază de determinarea sau presupunerea sexului persoanei înmormântate, 14 aparțineau unor femei și doar patru unor bărbați. O ultimă observație are în vedere datarea mormintelor în care s-a depus ceramică lucrată cu mâna. Asemenea complexe se înregistrează în toate etapele de pătrundere a sarmaților în Muntenia: 13 înmormântări în prima etapă (începând cu ultimul deceniu al secolului I p. Chr. și primele decenii ale secolului următor), patru morminte în secolul al II-lea p. Chr., 32 de complexe funerare în etapa a doua (posterioară războaielor marcomannice), două în etapa ultimă (sfârșitul secolului al III-lea). O eventuală predominare a obiceiului depunerii în morminte a ceramicii lucrate cu mâna în etapa a doua de pătrundere a sarmaților în Muntenia nu mi se pare a fi altceva decât o impresie, care poate fi foarte ușor explicată prin dezechilibrul numeric, înregistrat în anumite zone, dintre mormintele datate în prima etapă a pătrunderii sarmților în Muntenia și cele din a doua etapă.

The handmade pottery is generally difficult to analyze. The typological uniformity, the persistency of the same types of vessels with relatively few changes for long periods of time[1], the processing accidents (such as the asymmetry of the vessels) are all impediments that leave a mark upon a discussion about the handmade vessels and upon the attempt to date them.

The handmade vessels have already been discussed in two volumes dedicated to the Sarmatians from the eastern[2] and southern[3] Wallachia. The present contribution attempts to exceed the territorial limitation of the analysis in the two above mentioned volumes and to outline the main coordinates of the handmade pottery deposit in the Sarmatian graves of Wallachia. The analysis undertaken in the following lines has the advantage of reuniting in a coherent entirety the information published so far in a disparate manner and within this entirety certain features stand out visibly.

The handmade pottery was discovered in 55 graves of Wallachia which were attributed to the Sarmatians. Finding the percentage represented by the 55 graves of the total of funerary structures attributed to the Sarmatians of Wallachia incurs a major difficulty which has already been underlined[4] – the lack of knowledge of the exact total number of Sarmatian graves in Wallachia. The existence of certain novel funerary structures about which there are only brief mentions in the literature (Chirnogi, for example) or which have been published only recently (M. 6-10 in Călăraşi[5]), graves which were initially attributed to the Sarmatians but were excluded following a thorough analysis as they belonged to another periods (Râmnicelu M. 12 and M. 18, for example[6]), uncertain discoveries in terms of dating or whose origin from the graves is not at all certain, discoveries which were documented as graves but proved to be something else rather than funerary structures following a closer analysis of the archaeological excavations notes (Vărăşti[7]) are just as many difficulties leaving their mark on the answer to an apparently simple question – how many graves attributed to the Sarmatians have been discovered so far in Wallachia. This is one of the reasons I have favoured an area analysis (Brăila Plain, southern Wallachia) to the detriment of a synthesis about the entire Wallachia, in which details such as the ones mentioned above might have been maybe overlooked. Several years ago, we estimated a number of 238 Sarmatian graves in Wallachia[8] (but 12 of them were under question, leaving us with the number of 226[9]), added by the burials from the necropoleis in which graves attributed to both the Sarmatians and the Sântana de Mureş-Cerneahov culture were discovered, which raises the total number to 282 graves. The publication of new Sarmatian graves, the exclusion from the funerary structures of certain discoveries, the existence of a still high number of graves which were not published systematically but merely mentioned in short excava-

[1] Vaday 1988-1989, 174.

[2] Oţa, Sîrbu 2009, 150-152 and 155.

[3] Sîrbu *et alii* 2014, 102-104.

[4] Oţa 1999, 885; Oţa, Sîrbu 2012, 130; Oţa, Sîrbu, Matei 2013, 325-326.

[5] Sîrbu *et alii* 2014, 27-31 and 37-38.

[6] Oţa, Sîrbu 2009, 138.

[7] Sîrbu *et alii* 2014, 85.

[8] Oţa, Sîrbu, Matei 2013, 325.

[9] Oţa, Sîrbu 2012, 130.

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tion reports raise grounded doubts as regards this number as well. I shall not venture to advance another number of Sarmatian graves, at least not until all the Sarmatian discoveries in Wallachia will be analyzed based on micro-areas. Only at the end of this process will it be possible to estimate the number of Sarmatian graves in Wallachia *which were discovered at a certain moment*. However, it is worth mentioning an important fact of a nature to smooth the above pessimism. Even though there are still unpublished graves, their number is most likely low[10], which I do not believe would determine a radical change so that the number of Sarmatian graves would exceed 300. Going back to the percentage represented by the Sarmatian graves in which handmade pottery was discovered, it may be estimated as low, ranging approximately between 18-20%.

The perspective changes when comparing the number of Sarmatian graves in which handmade pottery was deposited with the number of funerary structures in which wheel-made Dacian[11] pottery was discovered. If we exclude four funerary structures in which ceramic vessels with Dacian pottery analogies were handmade (Râmnicelu M. 19, Cireşu M. 3, Ulmeni M. 1, Smeieni M. 10) and we take into account the wheel-made vessels of Dacian tradition in M. 10 and probably M. 8 in Călăraşi, the number of graves in which wheel-made pottery was deposited amounts to 52. An important observation emerges from the above mentioned: although overall the handmade pottery deposits are reduced in terms of percentage, the same phenomenon is also noticed in the case of wheel-made Dacian pottery.

Territorial distribution

Most of the graves in which handmade pottery was deposited are documented in southern Wallachia (24 of a total of 121 graves on which we have data, at least at this stage of research). 18 funerary structures with handmade pottery as inventory were discovered in Brăila Plain (of a total of 73 Sarmatian graves found in the above mentioned area), seven in the area of the present localities Jilava and Târgşor (of a total of 24 published relatively detailed so far[12]) and six in the area of Buzău (of minimum 26 graves on which there is available data in the specialty literature, although unequal regarding the information). Even though at first glance the conclusion could be that of a concentration of the graves in which handmade pottery was deposited in the southern and eastern areas of Wallachia and a sporadic presence in the other areas (Jilava-Târgşor and Buzău), a comparison of the percentages represented by the graves which had as inventory handmade vessels of the total of Sarmatian funerary structures discovered in various areas is of a nature to tone down the prior statement.

The percentages are relatively close – the graves which had as inventory handmade pottery represent 19.83% of the Sarmatian graves in the southern Wallachia, 24.65% of the Sarmatian funerary structures documented in Brăila Plain, 23.07% of those concentrated in the area of Buzău, 29.16% of those published so far from the groups of graves in Jilava and Târgşor. The concentration of the graves in which handmade vessels were deposited as inventory in certain micro-areas of Wallachia seems to be rather an impression given by the different number of Sarmatian graves discovered in each area. The custom of depositing handmade vessels as funerary inventory is uniformly spread in terms of percentages within each micro-area.

11 graves of the 55 graves examined here[13] are isolated (Chiscani-*sat*, Însurăţei-*canal de irigaţie*, Racoviţa, Grădiştea-Coslogeni, Olteniţa-*Fundeneanu*, Borduşelu, Sănduliţa, Gura Ialomiţei, Vlădeni, Vităneşti, Smeieni-*sat*). The remaining 44 funerary structures originate from 23 groups with variable numbers of graves, from two to 18. The uniformity of the custom to deposit handmade pottery at micro-area level (where the percentages ranged on a relatively reduced scale between 29% and 19%) is not found in the detailed analysis of the groups of graves. If we calculate the percentage of graves having as inventory handmade pottery discovered in each group, the variations are even higher, ranging between a minimum of

[10] Only four funerary structures were really novel and we found out about another two burials after the publication of the 2013 contribution (see above, note 8) of a total of 121 graves in southern Wallachia.

[11] On the meaning I gave to the term "Dacian" see Oţa, Sîrbu 2012, 125-129.

[12] Of a total of 35 graves assigned to the Sarmatians discovered at Târgşor (Niculescu 2003, 193), only 18 have been systematically published. In the absence of any data on the inventory of the still novel 17 graves at Târgşor, I decided to consider only the 18 tombs published so far. My statistic of the present paper can be numerically changed at any time by the publication of the 17 graves, but I believe that many of the fundamental observations will remain valid. The calculation of the percentages represented by the handmade pottery graves of a total of 35 graves, documented so far at Târgşor, is from the very beginning invalidated by the fact that it would start from a false premise – the fact that in the remaining 17 graves no handmade pottery was discovered, which is however hard to believe.

[13] The bibliography of each tomb of the listed ones can be found in the catalogue at the end of the paper.

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8.33% and a maximum of 66.6%. The number of graves in which handmade vessels were deposited represent a percentage of 8.33% of the total for the group in Lişcoteanca-*Movila Olarului*, 12.5% of the total for the group in Olteniţa-*Iordoc*, 14.28% in Buzău-*sud*, 18.75% in Râmnicelu, 20% in Brăila-*Hipodrom*, Largu and Dorobanţu, 25% in Tichileşti, Sultana and Olteniţa-*Renie*, 27.77% in Târgşor, 28.57% in Bucu, 33.3% in Spiru Haret and Smeieni-*Movila Mare*, 40% in Călăraşi M. 6-10 and Ulmeni, 50% in Cireşu, Cetatea Veche, Măriuța and Grădiştea, 66.6% in Jugureanu and Jilava. Unfortunately, the exact number of Sarmatian graves discovered in Ruşeţu is unknown. However, a few coordinates stand out from the apparently extremely diverse picture presented above. In the case of small groups of graves, between two and three interments, the handmade pottery is deposited in rather high percentages: 66.6% in Jugureanu and Jilava (each with three Sarmatian graves), 50% in Cireşu, Măriuța and Cetatea Veche (each with two graves) and 33.3% in Spiru Haret and Smeieni-*Movila Mare* (each with three graves). For the groups of four-five Sarmatian graves, the presence of the handmade pottery as funerary inventory ranges between 40% (the groups with five graves each in Călăraşi M. 6-10 and Ulmeni), 25% (the groups with four graves each in Tichileşti and Sultana) and 20% (Brăila-*Hipodrom* and Dorobanţu, with five graves each). The highest variation can be observed in the case of the nine groups with high number of graves. The lowest percentages of handmade pottery are noticed in Lişcoteanca-*Movila Olarului* (group of 12 graves of which 8.33% had handmade pottery as inventory), Olteniţa-*Iordoc* (eight graves with a percentage of 12.5% graves with handmade pottery), Buzău-*sud* (at least seven graves, 14.28% with handmade pottery), Râmnicelu (16 graves, 18.75% having as inventory handmade pottery) – therefore in four groups. The highest percentage of graves having as inventory handmade vessels is documented in the case of the group of 10 graves in Grădiştea (50%). The percentage of the graves having as inventory handmade vessels is relatively uniform in the remaining four groups: 28.57% of a total of 14 graves in Bucu, 27.77% of a total of 18 graves taken into account in Târgşor, 25% of a total of 16 funerary structures in Olteniţa-*Renie*, 20% of a total of 10 tombs in Largu. Although relatively constant at micro-area level, the spreading of the custom to deposit handmade pottery is submitted to rather different rules within each group of graves, ranging between being quasi-absent (Lişcoteanca-*Movila Olarului*) and a proportion of 2/3 (Jugureanu and Jilava). Even though the groups have an identical number of graves, the presence of the handmade pottery can be very different in terms of balance, between 2/3 (the previously mentioned cases in Jugureanu and Jilava) and 1/3 (the groups with three graves each in Spiru Haret and Smeieni-*Movila Mare*). When analyzing the weight of the graves in which handmade vessels were discovered only within the groups in a micro-area, a few differences become immediately obvious between the two main areas in which the Sarmatian graves discovered so far in Wallachia are concentrated. Three of the eight groups of graves in Brăila Plain are characterized by the high percentage of graves having as inventory handmade pottery (one with 66.6% and two with 50%). The difference is even more obvious when making a comparison with the rest of five groups, without exception characterized by low percentages of graves with handmade vessels (between 33.3% and 8.33%). Unlike Brăila Plain, a micro-area characterized by high variations of the phenomenon of handmade pottery deposits, the situation in southern Wallachia is more balanced. Three groups of graves out of nine have a relatively high percentage of graves with handmade pottery (two with 50% and two with 40%) and only one group, the one in Olteniţa-*Iordoc*, has a low percentage of 12.5%. Between these two extremes, the rest of four groups are placed in a relatively uniform percentage range, between 28.57% and 20%. The percentage of the handmade pottery presence as funerary inventory is relatively low in three groups out of the four groups in Buzău area (33.3%, 20% and 14.28%) and variable between 66.6% and 27.77% for the Jilava-Târgşor area.

The grave layout, the age and sex of the buried individuals

The vast majority of the Sarmatian graves in Wallachia in which handmade pottery was deposited is represented by the flat structures, with eight exceptions: five *tell* burials (Cireşu M. 3, Lişcoteanca-*Movila Olarului* M. 17, Râmnicelu M. 1 and M. 16, Spiru Haret M. 1), two secondary graves in older tumuli (Sănduliţa M. 1, Smeieni-*Movila Mare* M. 10) and one funerary structure covered by a mound (Vităneşti M. 2).

The age of the buried individuals is known only in the case of 35 graves of the 55 analyzed. The ratio between the adult graves and the children graves is balanced: in 19 graves were buried adults (Brăila-*Hipodrom* M. 1, Bucu M. 6, Buzău-*sud* M. 4, Chiscani-*sat*, Grădiştea M. 5, M. 9, M. 13, M. 17,

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Largu M. 7, Râmnicelu M. 1, M. 19, Tichileşti M. 3, Târgşor M. 184, M. 196, M. 198, M. 267, Vităneşti M. 2, and based on the presence of the daggers as funerary inventory, there can also be assumed[14] as belonging to adults M. 17 in Lişcoteanca-*Movila Olarului* and the tomb in Însurăţei-*canal*), 15 funerary structures belonged to children (Bucu M. 1, M. 12, M. 13, Cireşu M. 3, Măriuța M. 2, Jilava M. 1, M. 2, Largu M. 3, Olteniţa-*Iordoc* M. 4, Olteniţa-*Renie* M. 2, Râmnicelu M. 16, Spiru Haret M. 1, Târgşor M. 261, Ulmeni M. 4, Vlădeni) and one to a female teenager (Grădiştea M. 11).

Even though the high number of graves for which the sex of the deceased could not be determined (36) is of a nature to impose caution, however in the case of the remaining 19 funerary structures an important observation stood out from the comparison of the number of burials which can be attributed to women with the burials in which men were buried. The observation takes into account the predominance of the "female" graves (15 – Borduşelu, Bucu M. 6, Călăraşi M. 6, M. 7, Chiscani-*sat*, Grădiştea M. 9, M. 11, Largu M. 7, Măriuța M. 2, Olteniţa-*Fundeneanu*, Olteniţa-*Renie* M. 1, M. 7, Târgşor M. 184, M. 198, Vităneşti) by comparison with the "male" graves (only four: Buzău M. 4, Târgşor M. 196, and, based on the presence of the dagger, Lişcoteanca-*Movila Olarului* M. 17 and Însurăţei-*canal*).

Typology of the vessels

The typology of the handmade vessels deposited in the Sarmatian graves in Wallachia is not very varied. Besides the fact that they were handmade, we have no other data on the vessels in Oltenița-*Iordoc* M. 4, Oltenița-*Renie* M. 1, Târgșor M. 196, Smeieni-*sat* M. 1, Grădiștea M. 13. The vast majority of the handmade vessels are jars – 49 vessels in 41 graves. The jars are generally deposited one in each grave and the exceptions with two such vessels are eight: Bucu M. 12, Oltenița-*Renie* M. 7, Ulmeni M. 1, Târgșor M. 198, Rușețu M. 1, Cireșu M. 3, Grădiștea M. 9, Jugureanu M. 2. It is worth mentioning the fact that in four cases the jars were covered with lids, handmade in their turn (Bordușelu, Smeieni-*Movila Mare* M. 10, Cireșu M. 3, both jars in M. 1 at Ulmeni). On another occasion I have drawn the attention[15] to the fact that I do not consider the lid as a separate vessel, but as a part of the vessel it covers, and that is why the lids are indicated separately only in the vessel typology and not in their statistics, where they are taken into account together with the vessel on which they were found.

a. The sub-types of ***jars***, according to the typology established for the vessels in Brăila Plain and southern Wallachia[16] are:

a. 1. Jars with a flat base, elongated bi-truncated body, rounded shoulder, flared and high mouth, like the upper part of a funnel: Dorobanțu M. 1, Gura Ialomiței, Oltenița-*Renie* M. 2, M. 7, both vessels in M. 1 at Ulmeni, Ulmeni M. 4, Bucu M. 1, Săndulița M. 1, Brăila-*Hipodrom* M. 1, Cireșu M. 3, Grădiștea M. 9, Spiru Haret M. 1, Târgșor M. 198, M. 267, Largu M. 7.

The jars of the sub-type a. 1 have seven variants:

a. 1. 1. Jars with a flat base and cambered body: Brăila-*Hipodrom* M. 1 (Pl. 1/2), Cireșu M. 3 (Pl. 1/3), Dorobanțu M. 1 (Pl. 1/6), Grădiștea M. 9 (Pl. 1/5), Gura Ialomiței (Pl. 1/1), Spiru Haret M. 1 (Pl. 1/4), Ulmeni M. 1 (Pl. 1/7);

a. 1. 2. Jars with flat, high base and cambered body: Jugureanu M. 1 (Pl. 2/2), Ulmeni M. 1 (Pl. 2/3), Ulmeni M. 4 (Pl. 2/1);

a. 1. 3. Jar with flat, widened base, cambered body, oblique rim outwards: Bucu M. 1 (Pl. 3/1);

a. 1. 4. Jars with a flat base, bi-truncated body, maximum diameter in the shoulders area: Oltenița-*Renie* M. 2 (Pl. 2/4), Târgșor M. 198 (Pl. 2/6), M. 267 (Pl. 2/5);

a. 1. 5. Jars with a flat base, bi-truncated body, mouth diameter larger than the base diameter: Largu M. 7 (Pl. 3/3); both vessels in Oltenița-*Renie* M. 7 (Pl. 3/4, 5);

a. 1. 6. Jar with a flat base, cambered body and long neck: Săndulița M. 1 (Pl. 3/2);

[14] I am not unconditionally placing equality between the deposit of weapons and the adult age, because such a statement can be easily contradicted by citing some examples of later graves in which grave goods typical for adults were discovered although the deceased were preadolescents (Effros 2006, 160; Curta 2009, 310). However, at least as regards the children graves assigned to the Sarmatians in Wallachia, no such situation has been documented so far, which prompted me to advance as an assumption (therefore with a certain degree of uncertainty) the adult age of the individuals buried with daggers.

[15] Sîrbu *et alii* 2014, 101.

[16] Oța, Sîrbu 2009, 151-152; Sîrbu *et alii* 2014, 102-104.

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a. 1. 7. Jars with a flat base, bi-truncated body, cambered in the maximum diameter area and long neck: Jugureanu M. 2 (Pl. 3/6), Târgșor M. 261 (Pl. 3/7).

Other sub-types of jars are:

a. 2. Jars with a flat base, sometimes very thick, elongated bi-truncated body, rounded shoulder, slightly flared mouth, rounded rim edge or oblique outwards: Călărași M. 7 (Pl. 4/1), Chiscani-*sat* (Pl. 4/3), Însurăței (Pl. 4/6), Racovița (Pl. 4/2), one vessel in Jugureanu M. 2 (Pl. 4/5), Tichilești M. 3 (Pl. 4/4), Buzău M. 4 (Pl. 4/8), one vessel at Rușețu M. 1 (Pl. 4/7) and, as far as they can be distinguished in the photo, the jars in M. 2 at Jilava and M. 16 in Râmnicelu;

a. 3. Jars with bi-truncated body, with the lower part much taller, rounded shoulder, short, cylindrical neck, slightly flared mouth: Bordușelu (Pl. 5/4), Vlădeni (Pl. 5/2), Bucu M. 6 (Pl. 5/3), Cireșu M. 3 (Pl. 5/1);

a. 4. Jar with a flat base, bi-truncated body, very cambered in the upper part, narrow, funnel-shaped mouth: Grădiștea M. 9 (Pl. 6/2);

a. 5. Jar with a flat base, cambered body, long, cylindrical neck and vertical mouth: the vessel in Pietroiu (Pl. 6/1; which however was not discovered in a grave and was not discussed in this analysis).

The next jar sub-type was attested so far only in two necropoleis:

a. 6. Jars with a flat base, diameter larger than the mouth, cambered body, rounded shoulder, short cylindrical neck, straight or very little flared mouth: Târgșor M. 198 (Pl. 6/4), one vessel in Rușețu M. 1 (Pl. 6/3).

The vessel in M. 184 at Târgșor (Pl. 6/5) seems to be inspired from the Dacian pottery not only in terms of form but also in terms of decoration[17].

The absence of the illustration or the fragmentary state of the vessel render impossible the inclusion in a certain sub-type of the jars in M. 1 at Jilava, M. 3 at Largu, M. 10 at Smeieni-*Movila Mare*, M. 5, M. 11, M. 17 at Grădiștea, M. 1 at Râmnicelu, M. 12 at Bucu, M. 6 at Călărași and M. 2 at Cetatea Veche.

b. A ***small, truncated vessel***, with slightly cambered base and wide mouth was discovered in Lișcoteanca-*Movila Olarului* M. 17. The description made by N. Harțuche[18] and the reduced height of the vessel (3.4 cm) seem to advocate, with all the caution dictated by the absence of any kind of illustration, in favour of a vessel of the ***bowl*** type. Other bowls have been also documented in M. 3 at Sultana (not illustrated), M. 4 at Ulmeni (impossible to assign to a certain tradition of pottery only based on the published photograph – Pl. 7/4), grave at Grădiștea-Coslogeni (with analogies in the Przeworsk culture – Pl. 7/3).

c. ***Mugs***, deposited one by one, were found in M. 13 at Bucu, M. 5 at Oltenița-*Renie* (not illustrated, impossible to frame in a sub-type) and M. 17 at Lișcoteanca-*Movila Olarului*.

c. 1. The mug in M. 17 at Lișcoteanca-*Movila Olarului* (Pl. 8/1) has a slightly concave base, bi-truncated-globular body, rounded shoulder, small handle, almost rhomboidal in section.

d. A ***vessel with spherical body, round base and tall, very flared mouth*** was discovered in Oltenița-*Fundeneanu* (Pl. 6/6).

e. Both ***perforated, truncated vessels, with square mouth and base*** were found in M. 2 at Vitănești (Pl. 7/1-2).

I have left behind two types of vessels which, although handmade, were registered in the Dacian pottery typology I have analyzed on another occasion[19]. It is time to make a clarification. From the desire to avoid any confusion, especially since for the pottery originating from the Sarmatian graves in Brăila Plain and the southern Wallachia other typologies have been proposed, I tried to maintain the same methods of analysis in the present paper. I determined from the very beginning the distinction between the Sarmatian vessels (a. jars; b. small, truncated vessel; c. jugs; d. spherical body vessels; e. perforated vessels), the vessels with analogies in the Dacian pottery forms (designated under letters "f" and "g" which however do not represent a continuation of the Sarmatian pottery typology but of the Dacian typology) and the vessels of a tradition other than Sarmatian or Dacian (the bowl at Grădiștea-Coslogeni). For the last above mentioned vessel, the one at Grădiștea-Coslogeni, I did not create a separate type – a choice which, at least at the present time, is dictat-

[17] Bichir 1973, pl. XLIII/3 of Poiana Dulcești-*Varniță*, level I (in terms of form), XLIV/1 of Poiana Dulcești-*Varniță,* level I and XLVII/5 of Piatra Neamț-*Lutărie* (in terms of decoration). The shape of the vessel is met in the "classic" phase of the Dacian pottery (Crișan 1969, fig. 76/4, of Poiana). Unfortunately, no detail has been published on the type of fabric used (Diaconu 1965, 20), so that, for the moment, we cannot say if the vessel represents a taken over of the Dacian pottery processed in the Sarmatian environment or it is an "import" from a Dacian workshop.

[18] Harțuche 1980, 207-208.

[19] Oța, Sîrbu 2012, 125-163.

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ed by several reasons: the fact that it represents, for now, a unique item in the pottery inventory of the Sarmatian graves in Wallachia; the impossibility to precisely assign to a ceramic tradition the bowls in M. 3 at Sultana and M. 4 at Ulmeni; the question marks regarding the functionality of the truncated vessel in Lișcoteanca-*Movila Olarului* M. 17 and the absence of any kind of possibility to link it to any of the previously listed vessels. All these reasons determined me to discuss the bowls all together, regardless of their possible filiation to a different production, however without attempting to detail the sub-types.

The handmade Dacian ceramic comprises:

f. ***Mugs***, discovered in M. 2 at Măriuța and M. 19 at Râmnicelu, constituting just as many sub-types:

f. 1. Mug with bi-truncated body, rounded shoulder, slightly flared mouth, oblique rim outwards (Râmnicelu M. 19 – Pl. 8/2);

f. 2. Mug with concave, tall base, pronounced bi-truncated body, slightly flared mouth, rounded rim, one excessively elevated handle (Măriuța M. 2 – Pl. 8/3);

g. ***Lids***, discovered in four graves, with two sub-types:

g. 1. Lids with concave button (Ulmeni M. 1 – Pl. 7/6, Bordușelu – Pl. 7/7, Cireșu M. 3 – Pl. 5/1);

g. 2. Lid with flat button (Ulmeni M. 1 – Pl. 7/5).

Although belonging to different pottery traditions (Sarmatian, Dacian, Przeworsk), the handmade vessels chosen to be deposited in the Sarmatian graves of Wallachia, as far as one can observe based on the archaeologically noticed ritual and the funerary inventory, do not seem to prove differences in terms of their deposit in a structure. Although very different typologically from the Sarmatian vessels, the vessels taken over from other ceramic repertoires do not seem to be vested with a special significance as grave goods, possibly derived from the rarity of their presence[20]. The lids, forms taken over from the Dacian pottery, are one with the Sarmatian vessels they cover. Like the vast majority of the Sarmatian vessels, the mugs with analogies in the Dacian pottery of Măriuța or Râmnicelu are deposited in number of one, either single (Râmnicelu M. 19), or in association with only one bead (Măriuța M. 2). The bowl with analogies in the Przeworsk culture was the only inventory item in the grave at Grădiștea-Coslogeni.

The constancy in the grave deposit of a single handmade vessel knows 11 exceptions. In nine graves two vessels of the same type, predominantly jars, were deposited (Bucu M. 12, Oltenița-*Renie* M. 7, Ulmeni M. 1, Târgșor M. 198, Rușețu, Cireșu M. 3, Grădiștea M. 9, Jugureanu M. 2), added by the perforated vessels in M. 2 at Vitănești. The two handmade vessels were different in terms of type only in two graves: jar and bowl (Ulmeni M. 4), mug and truncated vessel (Lișcoteanca-*Movila Olarului* M. 17).

The inventory of the graves

Only handmade pottery, either alone or in association with other types of items was discovered in 42 of the 55 graves analyzed in the present paper (Bordușelu, Bucu M. 1, M. 6, M. 12, M. 13, Călărași M. 6-7, Cetatea Veche M. 2, Grădiștea-Coslogeni, Dorobanțu M. 1, Măriuța M. 2, Oltenița-*Iordoc* M. 4, Oltenița-*Renie* M. 1-2, M. 5, Săndulița M. 1, Sultana M. 3, Ulmeni M. 1, Vlădeni, Târgșor M. 184, M. 198, M. 261, M. 267, Buzău M. 4, Largu M. 3, Rușețu M. 1, Smeieni-*Movila Mare* M. 10, Smeieni-*sat*, Cireșu M. 3, Grădiștea M. 5, M. 11, M. 13, Însurăței-*canal*, Jugureanu M. 1-2, Lișcoteanca-*Movila Olarului* M. 17, Racovița, Râmnicelu M. 1, M. 16, M. 19, Spiru Haret M. 1, Tichilești M. 3). Two handmade vessels were deposited only in seven of the 42 burials (Bucu M. 12, Ulmeni M. 1, Târgșor M.198, Rușețu, Cireșu M. 3, Jugureanu M. 2, Lișcoteanca-*Movila Olarului* M. 17) and a single vessel in the rest of the graves.

The association between the handmade vessels and the wheel-made vessels (Dacian or Roman) is documented in 13 cases. The wheel-made Dacian pottery was deposited together with the handmade pottery in 11 tombs, and the mugs are predominant in terms of typology (eight graves: Oltenița-*Fundeneanu*, Oltenița-*Renie* M. 7, Vitănești M. 2, Jilava M. 1, Largu M. 7, Chiscani-*sat*, Brăila-*Hipodrom* M. 1, Grădiștea M. 17), with less bowls (Gura Ialomiței, Oltenița-*Renie* M. 7), bi-truncated vessels (Grădiștea M. 9, M. 17) and pot (Târgșor M. 196). In four graves, the handmade vessels were associated with Roman pottery: cup at Gura Ialomiței, mug in M. 1 at Ulmeni, amphora in M. 2 at Vitănești, pot in M. 2 at Jilava. It is however worth noting that two structures of the ones listed above, Gura Ialomiței and Vitănești M. 2 are characterized by the combination of the handmade vessels (jar at Gura Ialomiței, two perforated vessels at Vitănești), the wheel-made Dacian ones (bowl at Gura Ialomiței and mug at Vitănești) and the vessels imported from the Roman Empire (cup at Gura Ialomiței, amphora at Vitănești). If we exclude these two graves, the list of the associations between the types of handmade vessels and the

[20] "Objects that differ in a typological sense could well be identical in the perception of contemporaries on the basis of their worth" remark F. Theuws (2009, 292).

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wheel-made Dacian vessels indicates as relatively frequent only the combination between the handmade jar and the wheel-made mug (four cases: Jilava M. 1, Largu M. 7, Chiscani-*sat*, Brăila-*Hipodrom* M. 1). In the rest of the cases, the associations are singular in terms of number or type of vessels: handmade spherical vessel+wheel-made mug (Oltenița-*Fundeneanu*), handmade vessel of unspecified type and wheel-made pot (Târgșor M. 196), handmade jar+mug+bi-truncated vessel, the last two wheel-made (Grădiștea M. 17), two handmade jars+bi-truncated vessel (Grădiștea M. 9), two handmade jars+five wheel-made Dacian vessels, of which two mugs and one bowl (Oltenița-*Renie* M. 7). In M. 2 at Jilava, the handmade jar was associated with a Roman pot and in M. 4 at Ulmeni, two handmade vessels (jar and bowl) were combined with a Roman mug.

The general picture of the number and the types of vessels deposited in the 55 analyzed graves indicates the high frequency of the cases in which one single handmade vessel was deposited – 35 graves: jar in 25 cases (Bordușelu, Bucu M. 1, M. 6, Călărași M. 6-7, Cetatea Veche M. 2, Dorobanțu M. 1, Oltenița-*Renie* M. 2, Săndulița M. 1, Vlădeni, Târgșor M. 184, M. 261, M. 267, Buzău M. 4, Largu M. 3, Smeieni-*Movila Mare* M. 10, Grădiștea M. 5, M. 11, Însurăței, Jugureanu M. 1, Racovița, Râmnicelu M. 1, M. 16, Spiru Haret M. 1, Tichilești M. 3), mug in four graves (Bucu M. 13, Măriuța M. 2, Râmnicelu M. 19 and Oltenița-*Renie* M. 5), bowl (Grădiștea-Coslogeni and Sultana M. 3), vessel of unspecified type in four structures (Oltenița-*Iordoc* M. 4, Oltenița-*Renie* M. 1, Smeieni-*sat* M. 1, Grădiștea M. 13). The 14 graves in which two vessels were deposited indicate two situations, equally recorded: either both vessels are handmade (two jars at Cireșu M. 3, Grădiștea M. 9, Jugureanu M. 2, Bucu M. 12, Târgșor M. 198, Rușețu M. 1; mug and truncated vessel in M. 17 at Lișcoteanca-*Movila Olarului*), or a handmade vessel+a wheel-made vessel (spherical vessel+mug at Oltenița-*Fundeneanu*; jar+mug at Jilava M. 1, Largu M. 7, Chiscani-*sat*, Brăila-*Hipodrom* M. 1; jar+Roman pot at Jilava M. 2; handmade vessel+wheel-made pot in M. 196 at Târgșor). Each of the four structures in which three ceramic vessels were discovered represents a unique case as type of associated vessels: jar+wheel-made Dacian bowl+Roman cup (Gura Ialomiței), two jars+wheel-made bi-truncated vessel (Grădiștea M. 9), jar+wheel-made mug+ wheel-made bi-truncated vessel (Grădiștea M. 17), handmade jar+handmade bowl+Roman mug (Ulmeni M. 4). The four vessels in M. 2 at Vitănești were two handmade perforated vessels, a wheel-made Dacian mug and a Roman amphora, and in M. 7 at Oltenița-*Renie* there was an association of two handmade jars, two wheel-made Dacian mugs, one wheel-made Dacian bowl and two vessels of unspecified type.

I chose to discuss previously the association between the handmade pottery and the wheel-made pottery in order to put together all the observations on the ceramic vessels in the graves analyzed in the present paper. However, from the frequency point of view, the most common combination is not the one between the handmade and the wheel-made pottery (found in 13 graves) but the one between the handmade pottery and the adornments – 17 graves. The most frequent adornment items are the beads – 15 graves. The issue raised every time the beads discovered in a grave are analyzed is the one of differentiation – which is not always possible – between the beads deposited in a grave as adornment items and the ones which in fact adorned the clothes worn by the deceased and which should be rather framed in the dress items category. The position in which the beads were discovered can be an important clue in operating this distinction. We have therefore excluded from the beads–adornment items the pearls about whose position in the grave we can no longer know anything (Ulmeni M. 1, Chiscani-*sat*) and the beads discovered only in the pelvis or the feet area which probably adorned the clothes (Oltenița-*Renie* M. 5, Vitănești M. 2). I considered as being proper adornments the beads in 11 structures: Călărași M. 7, Oltenița-*Renie* M. 1, M. 7, Ulmeni M. 4, Târgșor M. 184, M. 198, M. 267, Largu M. 7, Grădiștea M. 11, Spiru Haret M. 1, Măriuța M. 2. Other types of adornments recorded in association with the handmade pottery are the earrings (six graves: Călărași M. 6-7, Târgșor M. 184, M. 198, Largu M. 7, Chiscani-*sat*), the pendants (three cases: Călărași M. 7, Ulmeni M. 4, Târgșor M. 184), the bracelets (two graves: Călărași M. 7 and Gura Ialomiței). In over half of the graves in which the handmade pottery was associated with adornment items (excluding the four previously mentioned cases on which there are questions regarding the framing of the beads as adornments), a single type of adornment was discovered: the beads (Oltenița-*Renie* M. 1, M. 7, Târgșor M. 267, Grădiștea M. 11, Spiru Haret M. 1, Măriuța M. 2), possible earring (Călărași M. 6), bracelet (Gura Ialomiței). The basic set of adornments of the remaining five graves consists of beads+earrings (Târgșor M. 198, Largu M. 7, possibly added by Chiscani-*sat*), supplemented with pendant (Târgșor M. 184) or with pendant and bracelet (Călărași M. 7). The beads are associated only with pendant just in M. 4 at Ulmeni. It would be worth mentioning the fact that

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the handmade pottery is combined with the wheel-made pottery and adornments in five graves (Gura Ialomiței, Oltenița-*Renie* M. 7, Ulmeni M. 4, Largu M. 7, Chiscani-*sat*).

The dress items are documented in seven graves of the ones analyzed in the present paper: brooches in six structures (Călărași M. 7, Dorobanțu M. 1, Ulmeni M. 1, Târgșor M. 198, Smeieni-*sat* M. 1, Chiscani-*sat*), appliqués and buttons in one case (Vitănești M. 2), buckle in one grave as well (Târgșor M. 198). However, if we also consider the link on the right side of the pelvis of the deceased in M. 4 at Buzău as a possible dress item and if we also add the eight cases in which beads were documented in the pelvis or the feet area (Oltenița-*Renie* M. 5, M. 7, Târgșor M. 184, M. 198, M. 267, Largu M. 7, Grădiștea M. 11, Vitănești M. 2), then the total number of graves in which the handmade pottery was associated with dress items would amount to 13.

The deposit of mirrors characterizes 11 graves: Bordușelu, Bucu M. 6, Călărași M. 6-7, Oltenița-*Renie* M. 1, M. 7, Târgșor M. 184, M. 198, Largu M. 7, Chiscani-*sat*, Grădiștea M. 11. The cases in which the handmade pottery was combined with adornment items and mirrors are only two (Călărași M. 6, Oltenița-*Renie* M. 1), unlike the series of seven structures characterized by the presence of handmade pottery, adornment items and dress items (Călărași M. 7, Târgșor M. 184, M. 198, Grădiștea M. 11, Oltenița-*Renie* M. 7, Largu M. 7, Chiscani-*sat*), among which the last three listed graves also contained wheel-made pottery.

The household items discovered in 10 graves are predominantly spindle-whorls (nine graves: Bucu M. 6, Oltenița-*Fundeneanu*, Oltenița-*Renie* M. 7, Târgșor M. 184, M. 198, Chiscani-*sat*, Grădiștea M. 9, M. 11, Râmnicelu M. 16), less knives (Buzău M. 4 and possibly Grădiștea M. 9). In five cases, the spindle-whorls in the graves with handmade pottery were associated with mirrors, adornment items and dress items (Oltenița-*Renie* M. 7, Târgșor M. 184, M. 198, Chiscani-*sat*, Grădiștea M. 11).

The overall image of the inventory of the Sarmatian graves in Wallachia in which handmade pottery was discovered is completed by the categories of rarely found items: weapons (Lișcoteanca-*Movila Olarului* M. 17 and Însurăței-*canal de irigație*), ankle bones (Gura Ialomiței and Oltenița-*Iordoc* M. 4), astragals (Jilava M. 1, Târgșor M. 196), glass vessels (Oltenița-*Renie* M. 7 and Vitănești M. 2, although none of the two burials is exempted from reserves[21]), harness items (Vitănești M. 2), animal skull (Vlădeni), chalk (Grădiștea M. 9), pinky-yellowish paste granules (Largu M. 7).

A discussion about the total number of items deposited in the graves having as inventory handmade pottery completes the perspective from which the abovementioned funerary structures can be interpreted. We must draw attention from the very beginning to the high number of graves with few items. In 18 burials only one handmade vessel was deposited (Bucu M. 1 and M. 13, Cetatea Veche M. 2, Grădiștea-Coslogeni, Oltenița-*Renie* M. 2 and M. 5, Săndulița M. 1, Sultana M. 3, Târgșor M. 261, Largu M. 3, Smeieni M. 10, Grădiștea M. 5 and M. 13, Jugureanu M. 1, Racovița, Râmnicelu M. 1 and M. 19, Tichilești M. 3). Five of the 18 graves belonged to children and other five to adults. If we exclude, like in the case of the graves with one single inventory item, the beads susceptible of having been sewn on the clothes, the number of the graves with two grave goods is 14, of which eight children, two adults and four undetermined individuals (Bordușelu, Bucu M. 12, Dorobanțu M. 1, Oltenița-*Iordoc* M. 4, Vlădeni, Jilava M. 2, Târgșor M. 267, Smeieni-*sat* M. 1, Cireșu M. 3, Brăila-*Hipodrom* M. 1, Jugureanu M. 2, Râmnicelu M. 16, Spiru Haret M. 1, Măriuța M. 2). In five funerary structures only ceramic vessels were deposited, either handmade (Bucu M. 12, Cireșu M. 3, Jugureanu M. 2), or one handmade vessel and one wheel-made vessel (Jilava M. 2, Brăila-*Hipodrom* M. 1). We cannot find out the exact number of the items deposited in the grave discovered at Însurăței-*canal de irigație* of which only a handmade vessel and one dagger were recovered. The number of graves with three inventory items each amounts to 10 (Bucu M. 6, Călărași M. 6, Oltenița-*Fundeneanu*, Oltenița-*Renie* M. 1, Jilava M. 1, Târgșor M. 196, Buzău M. 4, Grădiștea M. 17, Lișcoteanca-*Movila Olarului* M. 17, Rușețu M. 1). Given that for eight of the 10 structures we benefit of knowing the sex and age of the buried individuals, a possible statistic would have a reduced margin of error. Only one grave belonged to a child (Jilava M. 1), other four burials can be assumed, based on the funerary inventory (deposit of mirrors and spindle-whorls[22]), as belonging to women

[21] Sîrbu *et alii* 2014, 115.

[22] Again, being aware of the errors that can be generated by the "artifactual sexing" (Effros 2006, 176) of skeletons, I chose the analysis of the Sarmatian graves in Wallachia in which mirrors were discovered (Oța, Sîrbu, Matei 2013, 333-334) which did not reveal any potential anomaly as regards the composition of the funerary inventory of the above mentioned structures. Of course, generally, the reminders on the automatic equivalence are perfectly valid but maybe, in certain cases, the specific situation ascer-

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(Bucu M. 6, Călărași M. 6, Oltenița-*Fundeneanu*, Oltenița-*Renie* M. 1) and three belonged to men (Târgșor M. 196, Buzău M. 4, Lișcoteanca-*Movila Olarului* M. 17).

Of the 55 graves analyzed in this paper, 42 (namely 76.36%) are characterized by the deposit of a reduced number of inventory items, between one and three. For the remaining 12 structures (unfortunately, the grave at Însurăței-*canal* cannot be taken into account as we do not know the exact number of items), the number of deposited items ranges between four and 10-11. An observation is however required: four of the 12 graves can be regarded as belonging, in fact, to an "intermediary" group among the burials with reduced number of deposited items (between one and three) and the graves with high number of grave goods (between seven and 10-11). That which I have regarded as an "intermediary" group consists of two graves, each with four inventory items (Ulmeni M. 1 and M. 4) and of two graves, each with five items (Gura Ialomiței and Grădiștea M. 11). The remaining eight graves contained seven grave goods (Târgșor M. 184 and Chiscani-*sat*), over seven (Călărași M. 7), eight (Grădiștea M. 9 and Vitănești M. 2), between six and eight (Largu M. 7[23]), between seven and nine items (Târgșor M. 198) or 10-11 items (Oltenița-*Renie* M. 7).

Conclusions

Although regarded as one of the main clues which can determine the assignation of a grave to the Sarmatians, the handmade pottery was chosen as funerary inventory in rather few cases, at least in Wallachia – 55 graves. The vast majority of these graves (42) is characterized by the deposit of a reduced number of inventory items, ranging between one and three. Among the handmade vessels found in the Sarmatian graves in Wallachia, there are not only vessels characteristic for the discoveries attributed to the Sarmatians, but also vessels with analogies in the Dacian pottery (Râmnicelu M. 19, Măriuța M. 2) or the Przeworsk culture (Grădiștea-Coslogeni). Regardless the ceramic processing tradition, the handmade pottery does not seem, insofar as it can be discerned as archaeological discovery, to benefit of a differentiated treatment as grave good. Nothing in the funerary ritual or the inventory of the three above mentioned graves seems to suggest that the handmade pottery was granted a special significance, despite their rarity in the context of the Sarmatian discoveries in Wallachia.

The handmade pottery was discovered in 14 graves belonging to children. It is interesting to note the very low number of items in the vast majority of these graves: 12 graves with one or two grave goods. In five children graves only a ceramic vessel was deposited (Bucu M. 1, M. 13, Oltenița-*Renie* M. 2, Târgșor M. 261, Largu M. 3). Seven children graves had two items: only pottery (Bucu M. 12, Jilava M. 2, Cireșu M. 3), pottery and one adornment item, namely one bead (Măriuța M. 2, Spiru Haret M. 1), pottery and spindle-whorl (Râmnicelu M. 16), pottery and ankle bones (Oltenița-*Iordoc* M. 4), pottery and animal skull (Vlădeni). The exceptions are only two: M. 1 at Jilava (with three types of inventory items – handmade and wheel-made ceramic vessels and astragals) and Ulmeni M. 4 (with four grave goods: three ceramic vessels, a few beads and one pendant). In terms of items number and composition of the inventory, the children graves in which handmade pottery was discovered are framed in the general coordinates observed for the inventory of the Sarmatian graves of children in Wallachia: generally reduced number of grave goods (between one and four), scarcely varied composition of the funerary inventory with an accent on the ceramic vessels, especially the handmade ones, varied in terms of typology, possibly on the adornments such as the beads, however deposited in reduced number[24].

The relation between the graves determined or assumed as belonging to men and the handmade pottery seems to be rather occasional – only four graves, at least in the current stage of research. From all the "male" Sarmatian graves in Wallachia, the four above mentioned structures stand out only by the choice of a handmade ceramic vessel, in the conditions under which, in the rest of the graves assigned to men, the preference seems to have been rather granted to the wheel-made pottery. The reduced number of items and the association of the handmade vessel (or vessels) and the dagger (Lișcoteanca-*Movila Olarului* M. 17, Însurăței-*canal*), between the handmade vessel, knife and possibly dress item (Buzău M. 4), handmade vessel and wheel-made vessel and astragals (Târgșor M. 196) are features which do not come out from the somewhat "standardized" pattern of the grave

tained in a given territory, rather small for that matter, such as the case of Wallachia, should be credited. A new discovery can change the perspective at any time, but, at the present time, such a possibility remains only theoretical.

[23] The impossibility to specify the exact number of items is given to the presence of items whose functionality can no longer be known, the disaggregation of the items which could initially constitute a whole, the uncertainties related to the chronology of a certain item, possibly not belonging to the initial inventory.

[24] Oța, Sîrbu, Matei 2013, 328-330.

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goods belonging to "male" Sarmatian graves in Wallachia[25].

Although questioned by the existence of a very high number of undetermined graves in terms of the sex of the deceased (36), the relation between the handmade pottery and the graves belonging to women has other features than the ones noticed in the case of men's graves. Of the 19 funerary structures which benefit of the determination or the assumption of the sex of the buried individual, 14 belonged to women and only four to men. I believe that the handicap of the very high number of undetermined graves will never be recovered, but even in these circumstances, the balance between the "male" and the "female" graves seems to suggest a predominant deposit of handmade pottery in the graves belonging to women (besides the ones belonging to children) than in the graves belonging to men, at least as regards the territory of Wallachia. The explanations can be sought in several ways without any certainty, at least for now. It might be that this prevalence of the female graves is only an impression given the fact that the female individuals are easier to identify based on the funerary inventory (especially mirrors)[26] than the male ones. However, it might be more than an impression. On another occasion[27], I have drawn the attention to the fact that the "female" graves have a more numerous and more diverse inventory than the "male" graves. In the conditions under which the studies on the social structure of the Sarmatian communities are not very numerous[28], the causes of such a difference are hard to explain. One may invoke the absence of a standardized pattern of the funerary inventory, reserved only to men, more important in the social hierarchy than women. We may think of a possible choice to compensate, during the funerals, a possible inferior social status, the grave thus becoming not a reflection, but a transformation[29], a built image[30] of the social status of women during their lives. Symbolization[31] is not excluded, by the items deposited in the grave, referring to a special status of women in the Sarmatian society[32]. Whichever the causes may be, I find it certain that the absence of a funerary inventory pattern imposed this numerical and typological diversity of the grave goods in the "female" graves and thus the presence of a higher percentage of handmade pottery can be understood easier. A forth explanation is not excluded – a possible intentional deposit of the handmade pottery in the graves which would reflect a special relation between women and the handmade pottery (maybe because they are the ones manufacturing it predominantly?). An interesting remark concerns the graves with high number of inventory items. With one exception (Oltenița-*Renie* M. 7), out of eight graves with number of items ranging between seven and 10-11, seven belonged to women (Călărași M. 7, Vitănești M. 2, Largu M. 7, Chiscani-*sat*, Grădiștea M. 9, Târgșor M. 184, M. 198), added by a structure with five inventory items, Grădiștea M. 11, of a female teenager.

One last observation takes into account the dating of the graves in which handmade pottery was deposited. Such tombs are documented in all the stages of penetration of the Sarmatians in Wallachia: 13 burials in the first stage (starting with the last decade of the first century AD and the first decades of the following century), four graves in the second century AD, 32 funerary structures in the second stage (subsequent to the Marcomannic wars), two in the last stage (the end of the third century). At least for now, nothing can be stated with certainty about the dating of four structures. A possible predominance of the custom to deposit handmade pottery in the graves in the second stage of penetration of the Sarmatians in Wallachia seems to be only an impression, easily explainable by the numerical imbalance documented in certain areas between the graves dated in the first stage of the Sarmatian presence in Wallachia and the ones of the second stage. For example, in southern Wallachia the gap is major, because only eight or 10 structures can be assigned to the first stage, by comparison with 90 linked to the second stage[33].

With few exceptions (the mugs in M. 19 at Râmnicelu and Mărița M. 2 are the most characteristic examples), the handmade vessels cannot constitute by themselves an indication for the dating of the graves in which they were deposited. The same types of jars are attested in graves assigned to the first stage of the Sarmatian presence in Wallachia and in the structures dated at the end of the third century AD. However, anchored in other characteristic features, the deposit of handmade vessels can shade a lot an image which allows itself to be glimpsed, at least for now, only by one single type of discoveries, the funerary ones, with all the limitations, sometimes drastic, devolving therefrom.

(English version Alexandra Decu)

[25] Oța, Sîrbu, Matei 2013, 331-333; Oța 2007, 52-53.

[26] Oța, Sîrbu, Matei 2013, 333-334.

[27] Oța, Sîrbu, Matei 2013, 335-337.

[28] Yatsenko 2003, 88-89.

[29] Pearce 2000, 3 and 8.

[30] Effros 2006, 160.

[31] Pohl 2006, 121.

[32] Yatsenko 2003, 93.

[33] Sîrbu *et alii* 2014, 131-133.

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CATALOGUE

Handmade vessels:

Grădiștea M. 13 (Harțuche, Anastasiu, Sîrbu 1983, p. 51, 55; Oța, Sîrbu 2009, p. 104 cat. IV A 25, 147);

Oltenița-*Iordoc* M. 4 (Sîrbu *et alii* 2014, p. 61 cat. 28-34. C. M. 4. 1);

Oltenița-*Renie* M. 1 (Sîrbu *et alii* 2014, p. 64 cat. 28-34. F. M. 1. 1);

Smeieni-*sat* M. 1 (Bichir 1977, p. 171, note 30, 188; Bichir 1996, p. 299, 300; Drâmbocianu 1981, p. 55; Harhoiu 1993, p. 46);

Târgșor M. 196 (Diaconu 1963, p. 325, 326; Diaconu 1965, p. 21).

a. Jars:

a. 1. 1.

Brăila-*Hipodrom* M. 1 – Pl. 1/2 (Harțuche 1980, p. 203; Oța, Sîrbu 2009, p. 93 cat. I A 1, 147, 149, 151, 155);

Cireșu M. 3 – Pl. 1/3 (Harțuche 1980, p. 241, Pl. 13/1; Sîrbu 1980, p. 30, pl. V/5; Oța, Sîrbu 2009, p. 100 cat. III A 16, 147, 151, 155, Pl. 16/14, 17/18);

Dorobanțu M. 1 – Pl. 1/6 (Atanasiu 1969, p. 114-115; *Muntenia* 2001, cat. 109; Sîrbu *et alii* 2014, p. 42 cat. 16. 1);

Grădiștea M. 9 – Pl. 1/5 (Harțuche, Anastasiu, Sîrbu 1983, p. 50, fig. 2/3, 3/3; Oța, Sîrbu 2009, p. 102 cat. IV A 20, 149, 151, 155, fig. 18/12, 19/9)

Gura Ialomiței – Pl. 1/1 (Mușețeanu, Lungu 1978, p. 429, no. 7; Sîrbu *et alii* 2014, p. 51 cat. 20. 1);

Spiru Haret M. 1 – Pl. 1/4 (Harțuche, Anastasiu 1976, p. 228 cat. 465; Harțuche 1980, p. 224; Oța, Sîrbu 2009, p. 115-116 cat. X A 53, 147, 148, 151);

Ulmeni M. 1 – Pl. 1/7 (Morintz, Ionescu 1968, p. 110; Morintz, Ionescu 1970, p. 40, 42, fig. 3/4; Bichir 1977, p. 174, pl. 18/15; Sîrbu *et alii* 2014, p. 76 cat. 41. M. 1. 1, fig. 31/6)

a. 1. 2.

Jugureanu M. 1 – Pl. 2/2 (Bichir 1972, p. 141, pl. V/5; Bichir 1977, p. 172, 174, pl. 6/2, 19/4; Harțuche 1980, p. 205; Oța, Sîrbu 2009, p. 108 cat. VI A 33, 147, fig. 20/5);

Ulmeni M. 1 – Pl. 2/3 (Morintz, Ionescu 1968, p. 110; Morintz, Ionescu 1970, p. 40, 42, fig. 3/5; Bichir 1977, p. 174, pl. 18/16; Sîrbu *et alii* 2014, p. 76 cat. 41. M. 1. 2, fig. 31/7);

Ulmeni M. 4 – Pl. 2/1 (Morintz, Ionescu 1968, p. 110; Morintz, Ionescu 1970, p. 40, 42, fig. 5/4; Sîrbu *et alii* 2014, p. 81 cat. 41. M. 4. 1);

a. 1. 3.

Bucu M. 1 – Pl. 3/1 (Rența 2000, p. 39; Sîrbu *et alii* 2014, p. 16-17 cat. 3 M 1. 1);

a. 1. 4.

Oltenița-*Renie* M. 2 – Pl. 2/4 (Sîrbu *et alii* 2014, p. 64 cat. 28-34. F. M. 2. 1);

Târgșor M. 198 – Pl. 2/6 (Diaconu 1963, p. 326, fig. 2/3; Diaconu 1965, p. 21, 22-23, pl. XI/3, CXL/5)

Târgșor M. 267 – Pl. 2/5 (Diaconu 1965, p. 22);

a. 1. 5.

Largu M. 7 – Pl. 3/3 (Dragomir 1959, p. 476, 479, 480; Bichir 1972, p. 145; Dragomir, Croitoru 2011, p. 43-44);

Oltenița-*Renie* M. 7 – Pl. 3/4, 5 (Morintz, Ionescu 1968, p. 100, fig. 6/2, 4; Morintz, Ionescu 1970, p. 39; Bichir 1972, p. 145, pl. XVIII/2, 4; Bichir 1977, p. 174, pl. 7/4, 8/2; *Muntenia* 2001, cat. 106, 112; Sîrbu *et alii* 2014, p. 66 cat. 28-34. F. M. 7. 1-2);

a. 1. 6. Sănduliță M. 1 – Pl. 3/2 (Ulanici 1984, p. 113; Sîrbu *et alii* 2014, p. 74 cat. 39. M. 1. 1);

a. 1. 7.

Jugureanu M. 2 – Pl. 3/6 (Bichir 1972, p. 141, pl. IV/1; Bichir 1977, p. 172, 174; Harțuche 1980, p. 205-206; Oța, Sîrbu 2009, p. 108 cat. VI A 34, 147)

Târgșor M. 261 – Pl. 3/7 (Diaconu 1965, 22, 23);

a. 2

Buzău M. 4 – Pl. 4/8 (Drâmbocianu 1981, p. 52, 53);

Călărași M. 7 – Pl. 4/1 (Sîrbu *et alii* 2014, p. 27-28 cat. 4-6. F. M. 7. 1);

Chiscani-*sat* – Pl. 4/3 (Harțuche, Anastasiu 1976, p. 234, cat. 485; Harțuche 1980, p. 241; Oța, Sîrbu 2009, p. 96-97 cat. II A 9, 149, 151, 155);

Însurăței-*canal de irigație* – Pl. 4/6 (Oța, Sîrbu 2009, p. 106-107 cat. V B 30, 147, 151, 155);

Jilava M. 2 (Rosetti 1934, p. 209);

Jugureanu M. 2 – Pl. 4/5 (Bichir 1972, p. 144, pl. IV/2; Bichir 1977, p. 173, pl. 7/5, 19/1; Harțuche 1980, p. 205-206; Oța, Sîrbu 2009, p. 108-109 cat. VI A 35, 147, fig. 20/4);

Racovița – Pl. 4/2 (Harțuche, Anastasiu 1976, p. 257-258 cat. 530; Oța, Sîrbu 2009, p. 114 cat. VIII A 48, 147, 151);

Râmnicelu M. 16 (Harțuche, Anastasiu, Sîrbu 1983, p. 50, 54; Oța, Sîrbu 2009, p. 103-104 cat. IX A 50, 147);

Rușețu M. 1 – Pl. 4/7 (Bichir 1972, p. 145, pl. IV/5; Bichir 1977, p. 174-175, Pl. 6/3);

Tichilești M. 3 – Pl. 4/4 (Harțuche, Anastasiu 1976, p.

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227 cat. 463; Harțuche 1980, p. 225; Oța, Sîrbu 2009, p. 116 cat. XI A 55, 147, 151);

a. 3.

Borduşelu – Pl. 5/4 (Muşeţeanu, Lungu 1977, p. 250; Muşeţeanu, Lungu 1978, p. 423; Sîrbu *et alii* 2014, p. 15-16 cat. 2. 1);

Bucu M. 6 – Pl. 5/3 (Renţa 2000, p. 40; Sîrbu *et alii* 2014, p. 18-19 cat. 3. M. 6. 1);

Cireşu M. 3 – Pl. 5/1 (Harțuche 1980, p. 241, fig. 13/1; Sîrbu 1980, p. 30, pl. V/5; Oța, Sîrbu 2009, p. 99-100 nr. cat. III A 14, 147, 151, 155, fig. 16/15 a-b, 17/9 a-b)

Vlădeni – Pl. 5/2 (Sîrbu, Corbu 2006, p. 195-199; Sîrbu *et alii* 2014, p. 90 cat. 49. 1);

a. 4.

Grădiştea M. 9 – Pl. 6/2 (Harțuche, Anastasiu, Sîrbu 1983, p. 53, fig. 2/3, 3/4; Oța, Sîrbu 2009, p. 102 cat. IV A 21, 147, 149, 151, 155, fig. 18/14, 19/10);

a. 5.

Pietroiu – Pl. 6/1 (*Muntenia* 2001, cat. 110; Sîrbu *et alii* 2014, p. 73 cat. 36-37. 1);

a. 6.

Ruşeţu M. 1 – Pl. 6/3 (Bichir 1972, pl. IV/4; Bichir 1977, p. 174-174, pl. 7/3);

Târgşor M. 198 – Pl. 6/4 (Diaconu 1963, p. 326, fig. 2/2; Diaconu 1965, p. 21, 22-23, Pl. XI/2, CXL/2);

Not framed:

Bucu M. 12 (CCA campania 2005, p. 99; Sîrbu *et alii* 2014, p. 23 cat. 3. M. 12. 1-2);

Călăraşi M. 6 (Sîrbu *et alii* 2014, p. 27 cat. 4-6. F. M. 6. 1);

Cetatea Veche M. 2 (Sîrbu *et alii* 2014, p. 37 cat. 10. M. 2. 1);

Grădiştea M. 5 (Harțuche, Anastasiu, Sîrbu 1983, p. 50, 53; Oța, Sîrbu 2009, p. 101-102 cat. IV A 19, 147);

Grădiştea M. 11 (Harțuche, Anastasiu, Sîrbu 1983, p. 50, 54; Oța, Sîrbu 2009, p. 103-104 cat. IV A 23, 147);

Grădiştea M. 17 (Harțuche, Anastasiu, Sîrbu 1983, p. 51, 55; Oța, Sîrbu 2009, p. 104 cat. IV A 26, 149);

Jilava M. 1 (Rosetti 1934, p. 208);

Largu M. 3 (Dragomir 1959, p. 479, 480; Dragomir, Croitoru 2011, p. 41);

Râmnicelu M. 1 (Harțuche 1980, p. 217; Oța, Sîrbu 2009, p. 113-114 cat. IX A 49, 147);

Smeieni-*Movila Mare* M. 10 (Simache, Teodorescu 1962, p. 279, 280);

Târgşor M. 184 – Pl. 6/5 (Diaconu 1963, p. 326; Diaconu 1965, p. 20, 22-23);

b. Bowls:

Grădiştea-Coslogeni – Pl. 7/3 (Sîrbu *et alii* 2014, p. 41-42 cat. 15. 1);

Lişcoteanca-*Movila Olarului* M. 17 (Harțuche 1980, p. 207; Oța, Sîrbu 2009, p. 112 cat. VII C 46, 147, 148, 151, 155)

Sultana M. 3 (Morintz, Ionescu 1970, p. 42, 46; Sîrbu *et alii* 2014, p. 75 cat. 40. M. 3. 1);

Ulmeni M. 4 – Pl. 7/4 (Morintz, Ionescu 1968, p. 110; Morintz, Ionescu 1970, p. 40, 42, 46, fig. 5/5; Sîrbu *et alii* 2014, p. 81 cat. 41. M. 4. 2);

c. Mugs:

c. 1. Lişcoteanca-*Movila Olarului* M. 17 – Pl. 8/1 (Harțuche, Anastasiu 1976, p. 231-232 cat. 477; Harțuche 1980, p. 207-208; Oța, Sîrbu 2009, p. 112 cat. VII C 45, 147, 148, 151-152, 155);

Not framed:

Bucu M. 13 (CCA campania 2005, p. 99; Sîrbu *et alii* 2014, p. 24 cat. 3. M. 13. 1);

Olteniţa-*Renie* M. 5 (Sîrbu *et alii* 2014, p. 65 cat. 28-34. F. M. 5. 1);

d. Vessel with spherical body:

Olteniţa-*Fundeneanu* – Pl. 6/6 (Bichir 1977, p. 175; Bichir 1996, p. 305; Sîrbu *et alii* 2014, p. 66 cat. 28-34. B. 1);

e. Perforated vessels:

Vităneşti M. 2 – Pl. 7/1-2 (Leahu, Trohani 1979, p. 134, 138, fig. 7/1-2; Sîrbu *et alii* 2014, p. 86-87 cat. 47. M. 2. 1-2);

Handmade Dacian pottery:

f. Mugs:

f. 1. Râmnicelu M. 19 – Pl. 8/2 (Harțuche 1980, p. 222; Oța, Sîrbu 2009, p. 114-115 cat. IX A 52, 147, 155; Oța, Sîrbu 2012, p. 136, 144, 148);

f. 2. Măriuţa M. 2 – Pl. 8/3 (Lazăr, Parnic 2007, p. 140; Sîrbu *et alii* 2014, p. 55 cat. 24. M. 2. 1);

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g. Lids:

g. 1.

Borduşelu – Pl. 7/7 (Mușețeanu, Lungu 1977, p. 250; Mușețeanu, Lungu 1978, p. 424; Oța, Sîrbu 2012, p. 136; Sîrbu *et alii* 2014, p. 16 cat. 2. 2);

Cireşu M. 3 – Pl. 5/1 (Harțuche 1980, p. 241; Sîrbu 1980, p. 30; Oța, Sîrbu 2009, p. 100 cat. III A 15, 147, 155);

Ulmeni M. 1 – Pl. 7/6 (Morintz, Ionescu 1968, p. 110; Morintz, Ionescu 1970, p. 40, 42, fig. 3/3; Bichir 1977, p. 174, pl. 18/14; Oța, Sîrbu 2012, p. 136, 144, 148; Sîrbu *et alii* 2014, p. 77 cat. 41. M. 1. 4, fig. 31/5);

g. 2. Ulmeni M. 1 – Pl. 7/5 (Morintz, Ionescu 1968, p. 110; Morintz, Ionescu 1970, p. 40, 42, fig. 3/2; Bichir 1977, p. 174, pl. 18/13; Oța, Sîrbu 2012, p. 136, 144, 148; Sîrbu *et alii* 2014, p. 77 cat. 41. M. 1. 3, fig. 31/4);

Not framed:

Smeieni-*Movila Mare* M. 10 (Simache, Teodorescu 1962, p. 279, 280).

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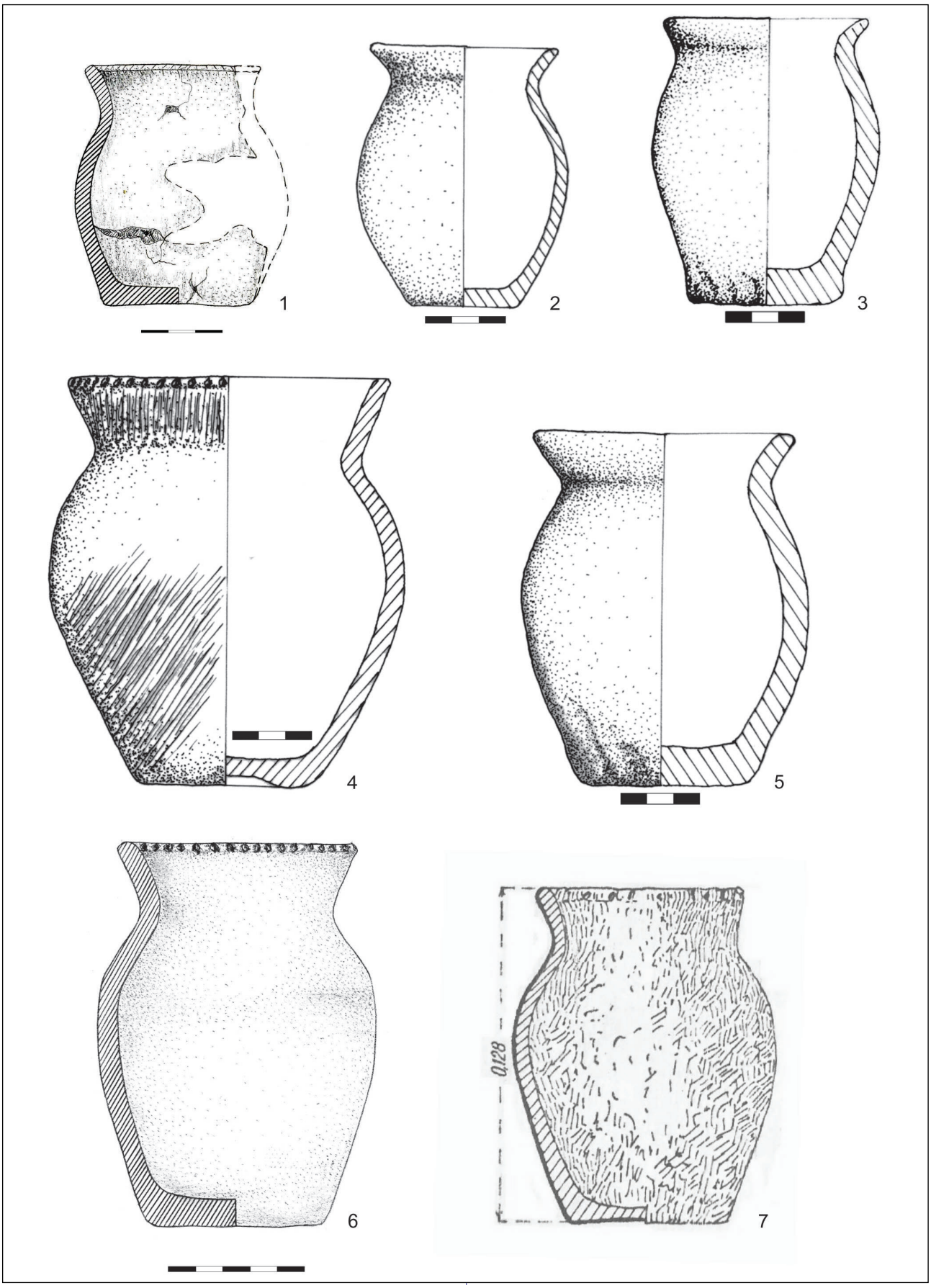

Pl. 1 – Jars (sub-type a. 1. 1). 1. Gura Ialomiței (according to Sîrbu *et alii* 2014); 2. Brăila-Hipodrom M. 1 (according to Oța, Sîrbu 2009); 3. Cireșu M. 3 (according to Oța, Sîrbu 2009); 4. Spiru Haret M. 1 (according to Oța, Sîrbu 2009); 5. Grădiștea M. 9 (according to Oța, Sîrbu 2009); 6. Dorobanțu M. 1 (according to Sîrbu *et alii* 2014); 6. Dorobanțu M. 1 (according to Sîrbu *et alii* 2014); 7. Ulmeni M. 1 (according to Morintz, Ionescu 1970).

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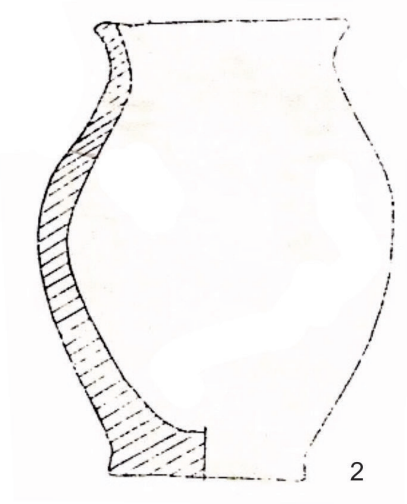

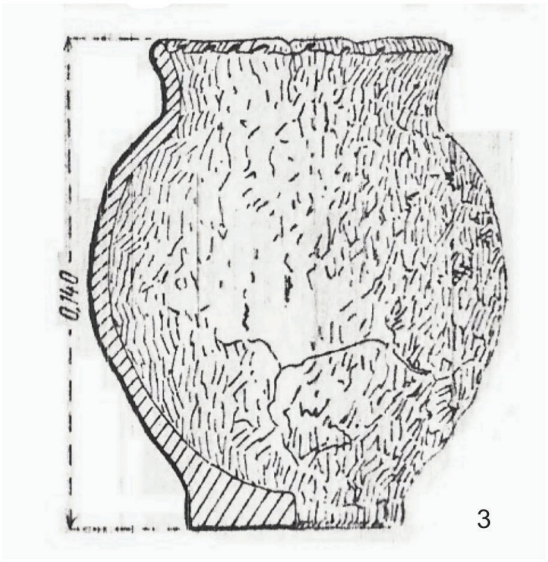

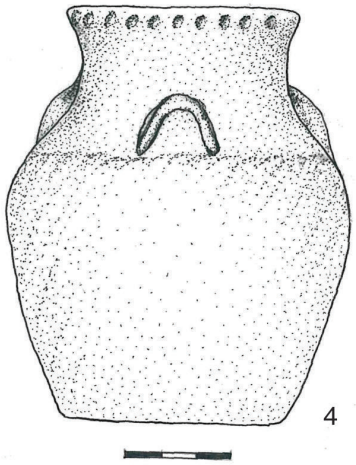

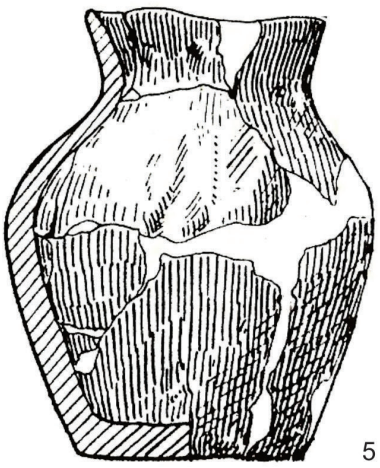

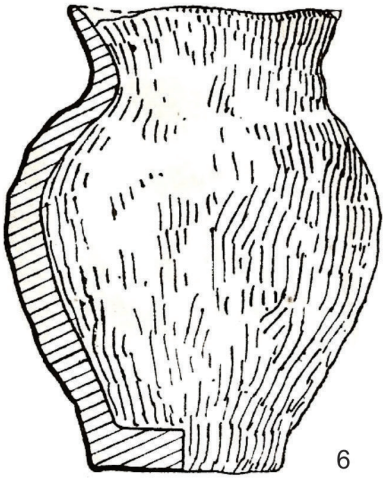

Pl. 2 – Jars (sub-types a. 1. 2 and a. 1. 4). 1. Ulmeni M. 4 (according to Morintz, Ionescu 1970); 2. Jugureanu M. 1 (according to Bichir 1977); 3. Ulmeni M. 1 (according to Morintz, Ionescu 1970); 4. Oltenița-Renie M. 2 (according to Sîrbu *et alii* 2014); 5. Târgșor M. 267 (according to Diaconu 1965); 6. Târgșor M. 198 (according to Diaconu 1965).

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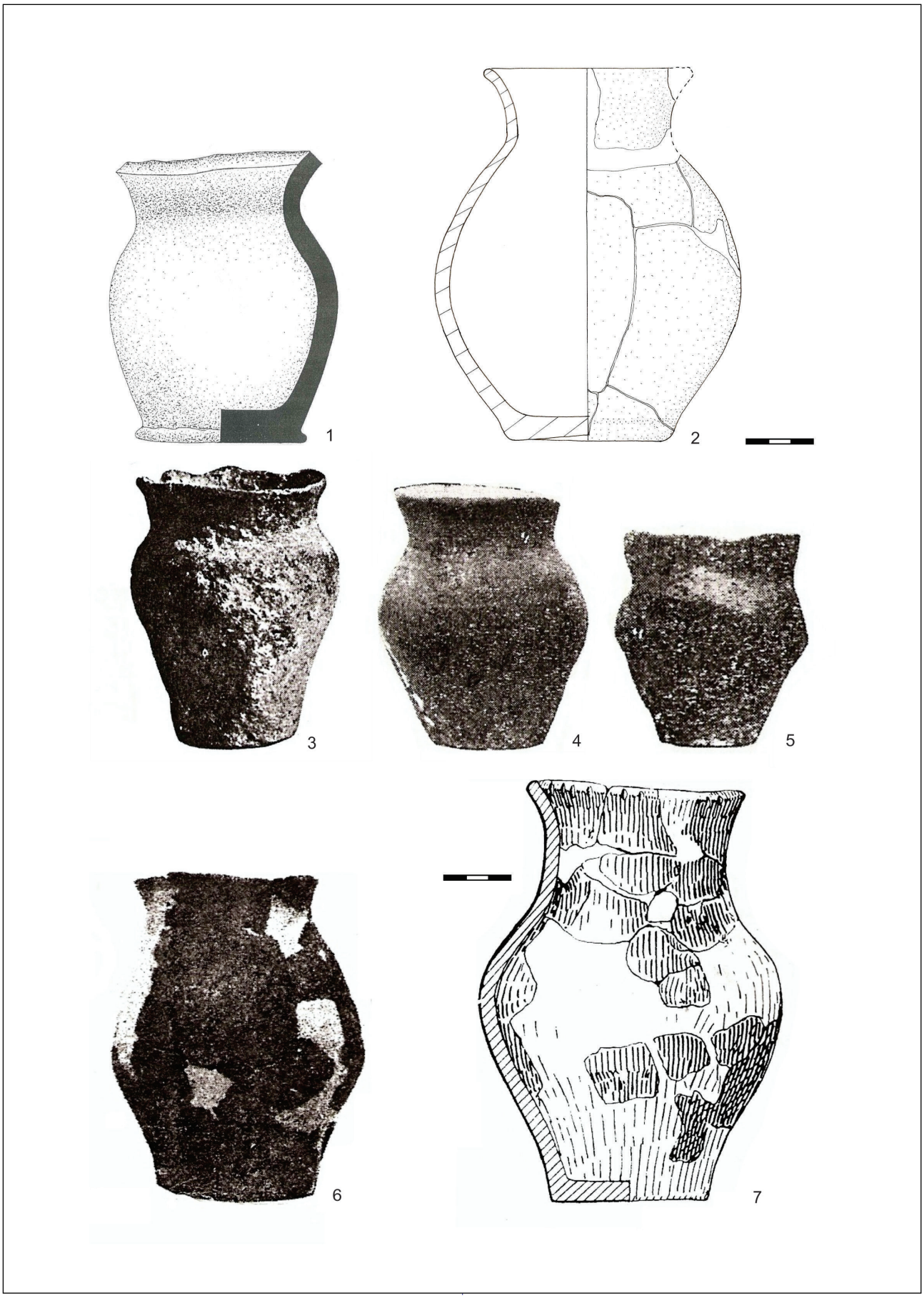

Pl. 3 – Jars (sub-types a. 1. 3, a. 1. 5, a. 1. 6 and a. 1. 7). 1. Bucu M. 1 (according to Sîrbu *et alii* 2014); 2. Săndulița M. 1 (according to Sîrbu *et alii* 2014); 3. Largu M. 7 (according to Dragomir 1959); 4-5. Oltenița-*Renie* M. 7 (according to Morintz, Ionescu 1968); 6. Jugureanu M. 2 (according to Bichir 1972); 7. Târgșor M. 261 (according to Diaconu 1965).

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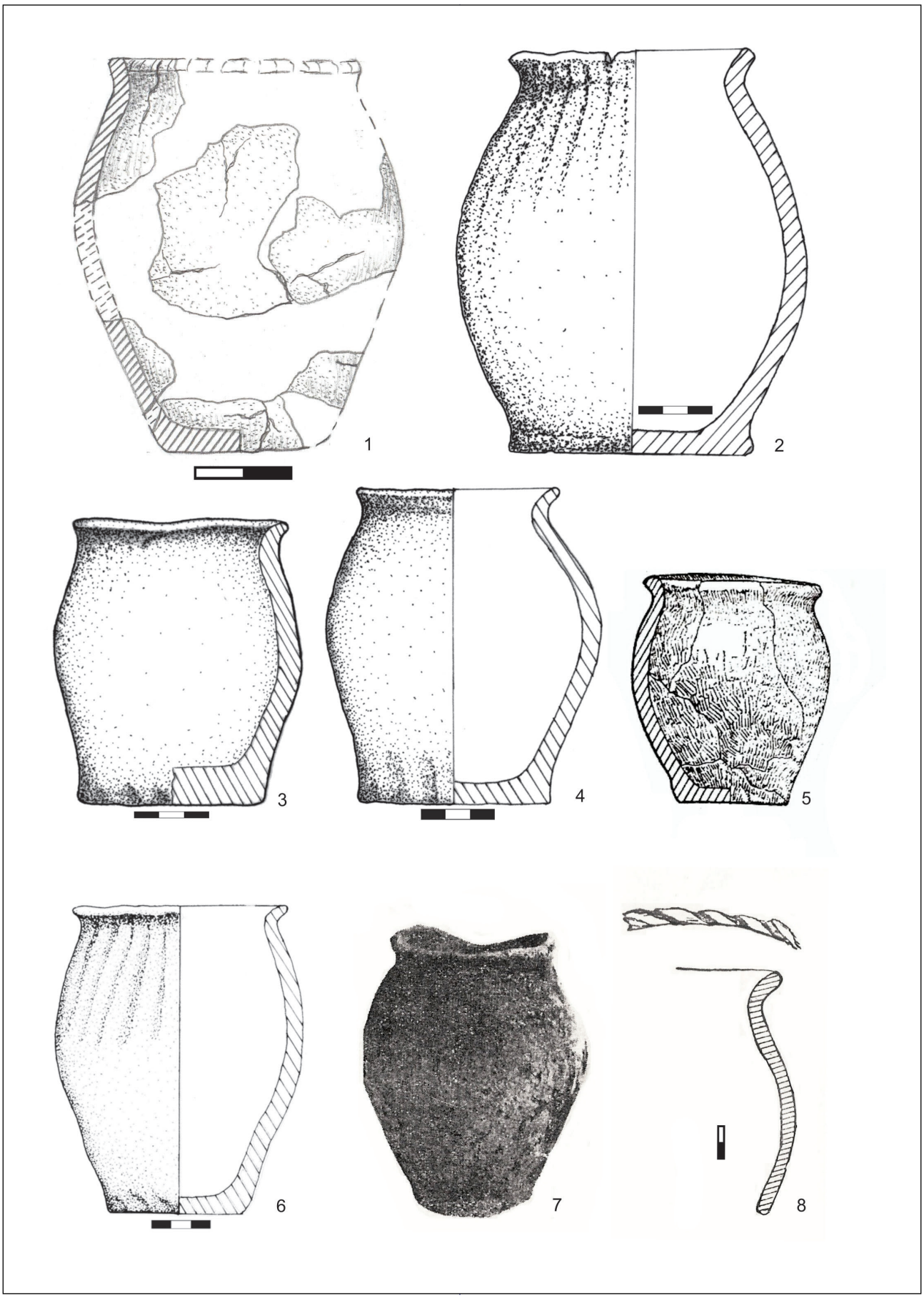

Pl. 4 – Jars (sub-type a. 2). 1. Călărași M. 7 (according to Sîrbu *et alii* 2014); 2. Racovița (according to Oța, Sîrbu 2009); 3. Chiscani-*sat* (according to Oța, Sîrbu 2009); 4. Tichilești M. 3 (according to Oța, Sîrbu 2009); 5. Jugureanu M. 2 (according to Bichir 1977); 6. Însurăței-*canal de irigație* (according to Oța, Sîrbu 2009); 7. Rușețu M. 1 (according to Bichir 1977); 8. Buzău-*sud* M. 4 (according to Drâmbocianu 1981).

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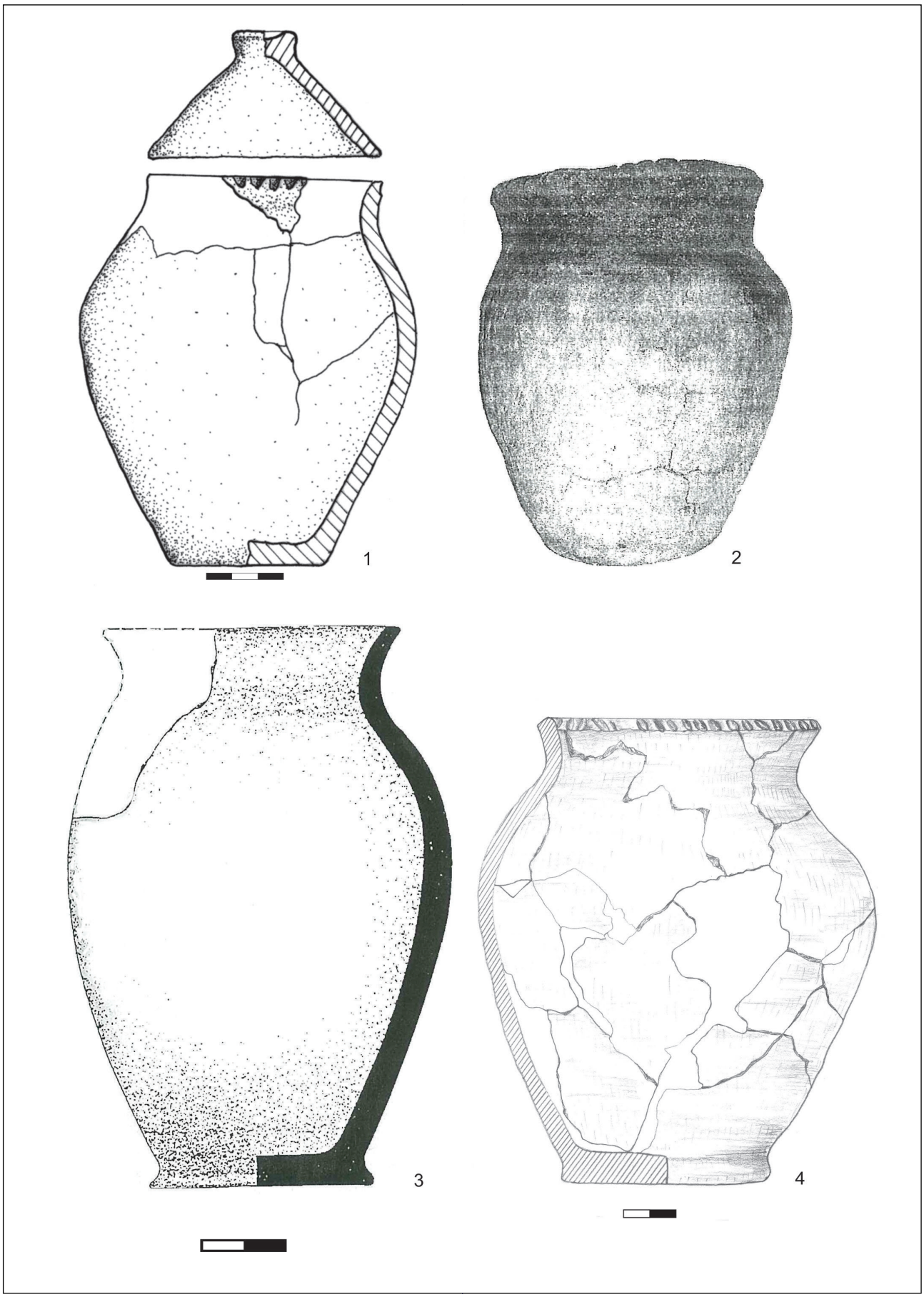

Pl. 5 – Jars (sub-type a. 3). 1. Cireșu M. 3 (according to Oța, Sîrbu 2009); 2. Vlădeni (according to Sîrbu *et alii* 2014); 3. Bucu M. 6 (according to Sîrbu *et alii* 2014); 4. Bordușelu (according to Sîrbu *et alii* 2014).

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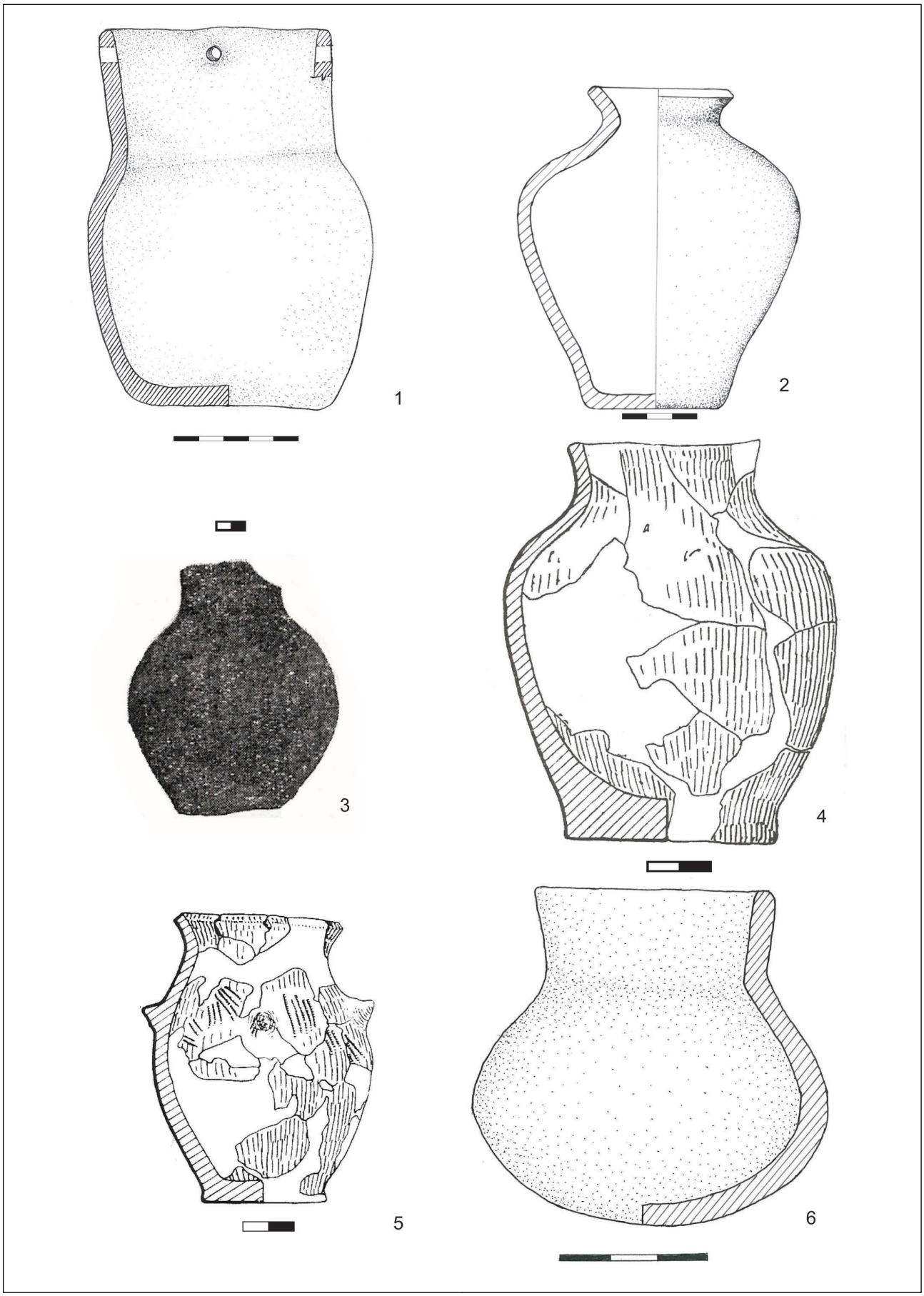

Pl. 6 – Jars (sub-types a. 4, a. 5 and a. 6) and vessel with spherical body. 1. Pietroiu (according to Sîrbu *et alii* 2014); 2. Grădiștea M. 9 (according to Oța, Sîrbu 2009); 3. Rușețu M. 1 (according to Bichir 1977); 4. Târgșor M. 198 (according to Diaconu 1965); 5. Târgșor M. 184 (according to Diaconu 1965); 6. Oltenița-*Fundeneanu* (according to Sîrbu *et alii* 2014).

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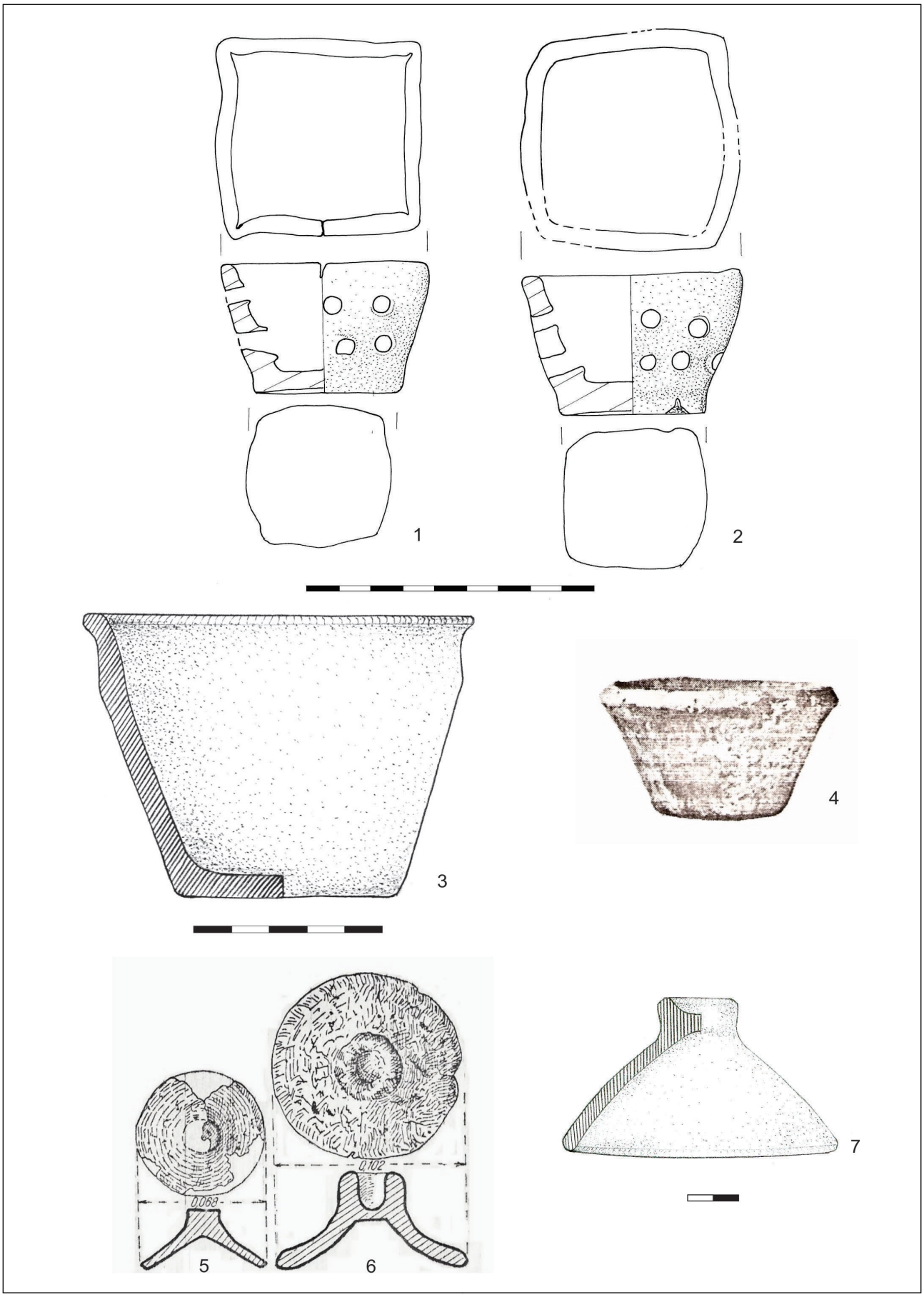

Pl. 7 – Bowls and lids. 1-2. Vitănești M. 2 (according to Sîrbu *et alii* 2014); 3. Grădiștea-Coslogeni (according to Sîrbu *et alii* 2014); 4. Ulmeni M. 4 (according to Morintz, Ionescu 1970); 5-6. Ulmeni M. 1 (according to Morintz, Ionescu 1970); 7. Bordușelu (according to Sîrbu *et alii* 2014).

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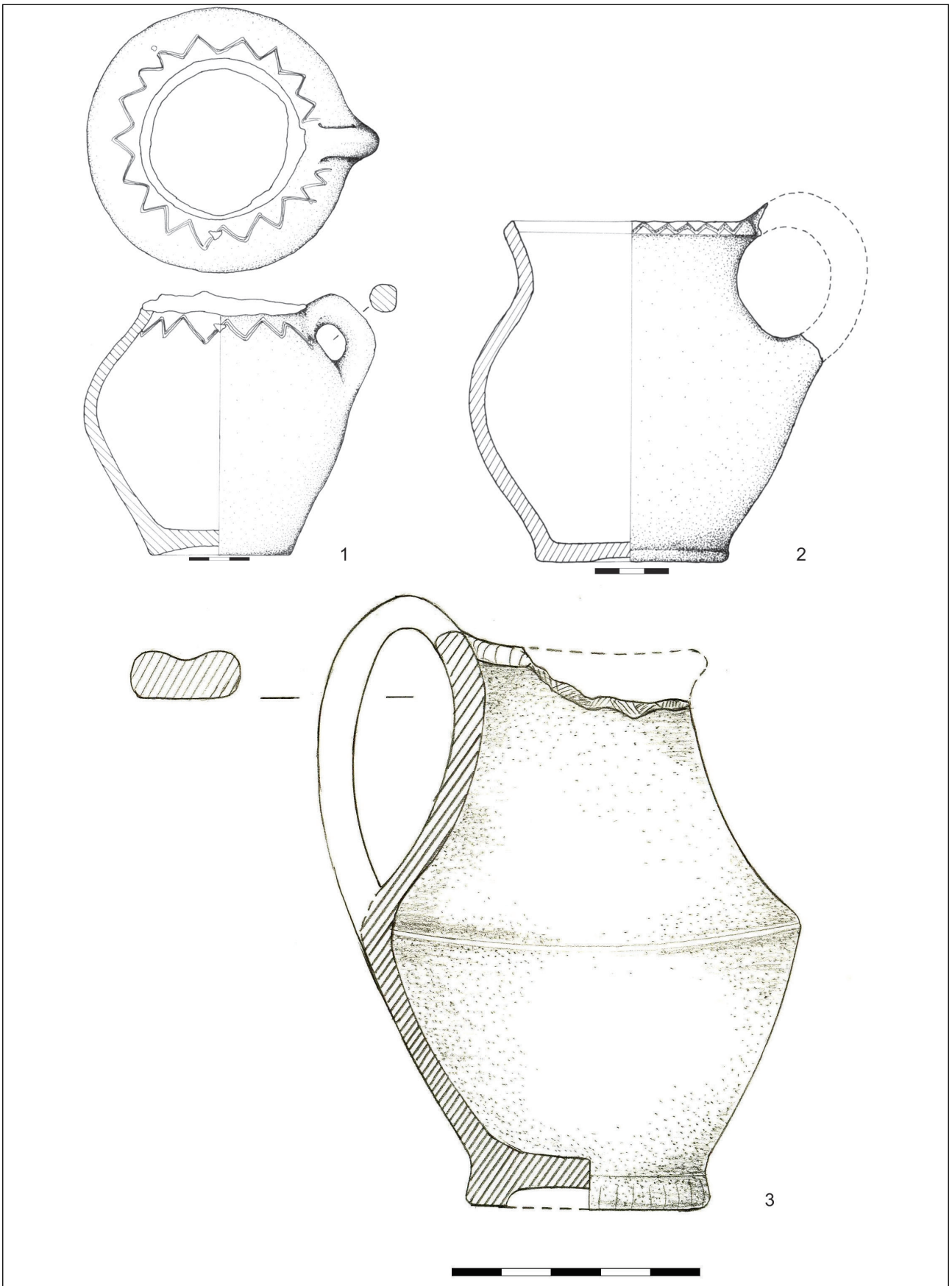

Pl. 8 – Mugs. 1. Lișcoteanca-*Movila Olarului* M. 17 (according to Oța, Sîrbu 2009); 2. Râmnicelu M. 19 (according to Oța, Sîrbu 2009); 3. Măriuța M. 2 (according to Sîrbu *et alii* 2014).

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THE *DACIA RIPENSIS* SECTION IN *NOTITIA DIGNITATUM (XLII)*

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Key-words: limes, *Dacia Ripensis*, *legio*, *cuneus*, *auxilium*, *cohors*, Danube, river frontier, Trajan's Dacia, forts, literary and geographic sources, *Antonine Itinerary*, *Tabula Peutingeriana*, fleet.

Abstract: As a new province, *Dacia Ripensis* held an important position on the Danube Imperial frontier. It most likely covered the southern stretch of the Trajanic Dacia. Basically, the first elements of the new mid 3rd century Danube defense system seems to find their first structures during Gallienus' reign, while Trajan's Dacia (north of the Danube) was still in existence. Practically, the process consisted in resuming the occupation of the previous 1st century installations, oriented at that time towards the powerful Decebalus-led Dacian state. Aurelian ended a process begun with one or two decades before him and to which he was a witness in the Roman army, abiding by the strategic requirements of the moment. Further adjustments have been carried out in Tetrarchic period. The all out 4th century (more specifically from the Constantinian period to the end of the century) picture of the army in *Dacia Ripensis* is offered by *Notitia Dignitatum* which figures basically the Constantinian arrangement, although some more earlier or later phases in the evolution of the system are discernable due to epigraphic evidence.

Cuvinte-cheie: *limes*, *Dacia Ripensis*, *legio*, *cuneus*, *auxilium*, *cohors*, Dunărea, frontieră riverană, Dacia Traiană, castre, surse literare şi geografice, *Itinerariul Antonin*, *Tabula Peutingeriana*, flotă.

Rezumat: În calitate de nouă provincie imperială, *Dacia Ripensis* deţinea o poziţie importantă pe frontiera dunăreană. Frontul ei riveran acoperea cel mai probabil porţiunea care a corespuns întinderii frontierei dunărene a Daciei traiane. De fapt, primele elemente ale noului sistem defensiv dunărean la mijlocul secolului III par să îşi găsească originile în timpul domniei lui Gallienus, atunci când Dacia traiană încă exista la nord de Dunăre. Practic, procesul reconstituirii apărării pe Dunăre a constat în reluarea ocupării instalaţiilor anterioare din secolul I, care fuseseră orientate la vremea respectivă către puternicul stat dac condus de Decebal. Aurelian a încheiat un proces început cu un deceniu înaintea lui, în timpul lui Gallienus, şi la care asistase ca ofiţer în armata romană, supunându-se noilor cerinţe strategice ale momentului. Noi modificări au fost efectuate în vremea Tetrarhiei. Imaginea globală a armatei romane din *Dacia Ripensis* în secolul IV, mai precis din perioada constantiniană până la sfârşitul secolului, este oferită de *Notitia Dignitatum* care înfăţişează practic reformele constantiniene, deşi alte câteva faze mai recente sau mai târzii în evoluţia sistemului sunt de asemenea detectabile prin dovezile epigrafice.

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Introduction

The *Notitia Dignitatum* (further *ND*) indicates as stretch of the Danube river frontier of *Dacia Ripensis*[1] the forts at Porečka reka, to the west, and *Utus* (Vit) eastward. This new section must have been conceived shortly before the official abandonment of the Trajan's Dacia, in 271 or 274/5 (fig. 1). Thus, after 170 years of prosperous urban and countryside life south of the Danube under the *aegis* of the robust Trajan's Dacia, the river line became again part of the northern frontier of the Empire[2].

[1] There is only one monographic approach of *Dacia Ripensis* as a province in its entirety (Vetters 1951). Archaeologists focused on specific large areas or individual sites or groups of sites. Intense rescue excavations along the Danube were promoted once the common Romanian-Jugoslav project of building two sizable hydropower stations across the Danube (Porţile de Fier/Iron Gates I and II) came into being. Nonetheless, the number of specifically oriented studies and articles as basic contributions for the knowledge of different areas and objectives on the territory of the former *Dacia Ripensis* is too large to be mentioned here individually; they will find their due place in the references in the text and footnotes. Notable contributions were brought: Kanitz between 1882 and 1914 (see bibliography); Brandis 1901, 1975-1976; Swoboda 1939; Tudor 1960, 335-364; Mirković 1968; Gudea 1974, 173-190; 1982, 93-113; 2001; Velkov 1976, 85-93; Tudor 1978[4], 416-470; Vasić, Kondić 1983, 542-560; 1986, 542-560; Mansuelli 1984, 13-36 passim; Petrović-Vasić 1996, 15-26; Ivanov 1997.

[2] The military occupation of the Danube stretch south of Trajan's Dacia between 106 and 275 has been much debated: Petrović 1980, 53-62; Benea 1981, 23-32; Gudea 1996, 49-88; 2000a, 292-298; 2000b, 15-24; 2001a, 29-45; 41-42. In our opinion, the problem resides in assessing the south bank of the river either as a still defense line or as an interior communication water thoroughfare of the Empire. If the south-western boundary of Trajan's Dacia was finally set, as it seems, along the Timiş-Cerna corridor, the sector between *Taliata* and *Singidunum* formed an open *limes* against the Sarmatians, in the Banat region, where two legions, the *VII Claudia* and the *IIII Flavia* as well as considerable amount of auxiliary regiments were still in an operative position, ready to intervene in the neighboring Dacia and Dalmatia, two provinces directly exposed to the Iazyges power center in the Tisa plain (Gudea 1977, 223-236). On the contrary, to maintain military forces along the Danube east of the mouths of the Cerna River, between *Taliata* and *Utum*, behind Trajan's Dacia, a heavily armed province with strength of ca. 55,000 men in garrison (Macrea 1969, 215-218; Petolescu 2002, 37-43), made no sense from a strategic viewpoint. There would have been highly unproductive from human and material resources viewpoint to protect the back of a heavily defended territory. Such a planning would have become even more useless once Hadrian established solid diplomatic arrangements in 118/119 with the Sarmatians and possibly free Dacians which opened the perspective of a peaceful economic and social life in Lower Moesia (Petolescu 2010, 166-167). Thus, the epigraphic material and archaeological artifacts found alongside this river sector, and initially attributed by some to the 2nd-3rd century military activity (cf. Gudea 2001a, 35-36 and Tab. 2) must be thoroughly revisited and archaeologically reassessed in a new context.

The late 3rd century strategic situation on this particular *limes* section differed significantly from its 1st century circumstances. The withdrawal from Trajan's Dacia was an organized process envisaging mainly the administrative and military personnel, who took over the new south Danubian territorial structures and the operational army; a number of civilian communities strongly bonded to the immediate economic and social interests of the Roman government could have accompanied the authorities, but, as archaeological evidence show, there was no vacuum produced by the withdrawal. There was a significant number of Romanized communities which continued to live in former Trajan's Dacia.

There must have been an Aurelianic edict, sanctioning juridically the abandonment of the province and the political provisions of the most probable treaties concluded with neighbouring populations (Goths, Carps, Vandals, Sarmathians, Gepids). The post-provincial landscape in former Dacia shows actually that the Roman administration forged a territory apparently gripped under the Empire's diplomatic and military control, a buffer zone intended to prevent any establishment of state structures similar to the 1st century Decebalus-led kingdom.

A strip of land north of the river have ostensibly remained under the Empire's occupation; the military control could have been expanded further north as much as needed, as shown by the epigraphic finds in *Tibiscum* (Jupa). The protection of former Trajanic Dacia, or at least a large part of its territory, implied the Empire' legacy to intervene in some political and military crisis unfolded north of the Danube, to maintain troops in garrison, and even re-annex considerable parts of the region. The Empire achieved its goal of not allowing the creation of any sort of barbarian state structure north of the Danube, at least until the Huns' invasion.

Within these parameters the river frontier of *Dacia Ripensis* may have become sufficiently lax to be considered a sort of 'soft limes', free of stress of major invasions but suitable for a manageable control of the territory north of the Danube.

The partially Gallienic and large scale Aurelianic reoccupation of the river line in *Dacia Ripensis* reveals a series of quite outstanding aspects: the adaptation of the defensive scheme to a distinct and specific environment, marked by the combination of the Danube course with a specific mountainous terrain; the character of the distribution of the regiments and forts, the latter of quite different types

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Fig. 1 – The general map of the provinces of *Dacia Ripensis* and *Dacia Mediterranea.*

(*quadriburgium, burgus, turris*), achieved in a region of particular political and administrative tradition; the position of the new Dacian district among other Danubian provinces in which the commencement of the Constantinian reforms of the army seems the earliest.

Place-names in *Notitia Dignitatum* and some identification issues

The list offered by the late 4th century Imperial administration for *Dacia Ripensis* in *ND*[3] yields a total number of 22 forts which were garrisoned by 29 legionary detachments and auxiliary regiments of different types and size. Out of the 22 places displayed by the Dacian section, nine (40%) are astonishingly new names totally ignored by the previous main itineraries, the *Antonine Itinerary* (further *It. Ant.*) and *Tabula Peutingeriana* (further *TP*)[4]. For comparison, *It. Ant.* displays 12, while *TP* 16 places on the same segment *Taliata-Utum* (Tab. I).

There is a group of new nine place names introduced in the Dacian list of *ND* which remain unknown to the itineraries: 1. *Translucum*; 2. *Transdierna*; 3. *Transalba*; 4. *Siosta*; 5. *Sostica*; 6. *Burgo Novo*; 7. *Transdrobeta*; 8. *Crispitia*; 9. *Sucidava*. Two, *Transdrobeta* (no. 7) and *Sucidava* (no. 9), show solid archaeological evidence for their 1st-3rd century function although, surprisingly,

[3] The Dacian section is framed in chapter XLII of *ND partibus Orientis*, in Seeck's edition of the document, Berlin 1876 and all the more recent editions thereafter. For the *primicerius notariorum* from Ravenna seat, under whose supervision the document, both for western (*partibus Occidentis*) and eastern (*partibus Orientis*) parts, was finally revised see: Enßlin 1956, 617-619; Brennan 1996, 147-178; Kulikowski 2000, 358-377.

[4] On the *It. Ant.* and its last update in 293 see: Cuntz, 1929, no. 1-75 (terrestrial), 76-85 (maritime); Löhberg, 2006, 49; van Berchem 1974, 301-308. *TP* has been dated lately by scholarship analysis to the fifth century as the last update: Levi, Levi 1967; Löhberg 2006, 50; Talbert 2010. As a specific document, an illustrated itinerary, in fact a road map showing the *cursus publicus* in the Roman Empire, *TP* is the result of successive copies and overprints carried out at various times from one or several ancient originals. The last revised copy dates from the fourth or early fifth century. The oldest information goes back probably to before 79, when Pompeii, not rebuilt after the eruption of *Vesuvius*, is mentioned; the document gives also *Aelia Capitolina*, which appeared as the new name of Jerusalem after 138. Fourth century mentions and image is provided for *Constantinopolis*, a name commonly used for *Byzantium* from the 5th century on.

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Table I. Place-names in *Dacia Ripensis* recorded in *Itineraries* and *Notita Dignitatum*.

	Itinerarium Antonini	***Tabula Peutingeriana***	***Notitia Dignitatum***	**Identification**
1			*Transalba*	Mali Golubinje
2			*Translucum*	Hajdučka Vodenica
3		*Dierna*	*Dierna*	Orşova
4			*Transdierna*	Tekja
5				Šip
6				--
8			*Siosta*	Insula Banului (?)
9				Donje Butorke
10				Karataš
11			*Sostica*	Kladovo
12				Puţinei (?)
13		*Drobeta*	*Drobeta*	Drobeta-Turnu Severin
14			*Transdrobeta*	Kostol
15				Hinova
16				Rtkovo
17				Ostrovul Corbului
18				Milutinovac
19	*Egeta*	*Egeta*	*Aegeta*	Brza Palanka
20				Ostrovul Mare
22				Slatinska Reka
23				Izvoarele
24		*Clevora*		Velika Kamenica
25	*Aquae*	*Aquae-Ad Aquis*		Prahovo
26	*Dorticum*	*Dorticum*	*Dorticum*	Vrăv
27			*Crispitia*	Košava
28		*Ad Malum*		?
29	*Bononia*		Bononia	Vidin
30			*Burgus Novus*	(btw Vidin and Dunavci)
31	*Ratiaria*	*Ratiaria*	*Ratiaria*	Arčar
32				Desa
33		*Remetodia*		Orsoia
34	*Almus*	*Almum*	*Almum*	Lom
35		*Pomodiana*		Stanevo
36	*Cebrum*	*Camistrum* (*Cebrum*)	*Cebrum*	Gorni Tsibar
37				Bistreţ
38		*Regianum*		Kozlodui
39				Zăvalu
40	*Augustae*	*Augustae*	*Augustae*	Harlet
41				Orjahovo
42	*Variana*		*Variana*	Leskovec
43		*Pedoniana*		Ostrov
44	*Valeriana*		*Va(le)riana*	Dolni Vadin
46	*Oescus*		*Oescus*	Gigen
47			*Sucidava*	Celei
48	*Utum*	*Utum*	*Utum*	Milkovica-Guljanci

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they were recorded in none of the itineraries. *Transdrobeta* is another name for *Pontes* (Kostol)[5] which paradoxically appears under the latter name only much later, in the 6th century Procopius of Caesarea's *On Buildings*[6]. *Sucidava* is hardly observable in 2nd-3rd century epigraphic evidence[7].

Three others of this lot, *Transalba* (no. 3), *Siosta* (no. 4), and *Sostica* (no. 5) have not been identified as yet (see below), while *Burgus Novus* (no. 6) was only conjecturally placed somewhere between Vidin and Dunavci[8], but more likely at Radujevac[9]. *Crispitia* is proposed to be located at modern Košava (see below note 40)[10].

Four places are composite. They bear the preposition *Trans* followed by the name of the toponym: *Translucum* (no. 2), *Transalba* (no. 3), *Transdierna* (no. 4), *Transdrobeta* (no. 7). These four cases, specific only for *Dacia Ripensis*, reveal an odd manner of rendering the pair-places situated on either side of the Danube. The *ND* pattern in the mid-Danube provinces for this particular sort of pair forts is the preposition *Contra-* the bridge-head built on the left bank of the river[11]. In *Dacia Ripensis* the situation is apparently rendered contrary wise to this principle: the subordinate fort seems to have been considered the one on the right bank, while the main would normally goes for a bridge head to the north, on the left bank. That creates, at first sight, a distorted image. However, the situation has an explanation. In the 2nd-3rd century, large and important forts that soon became urban structures to which the status of *municipium* or *colonia* have been granted existed on the left bank of the Danube: *Drobeta* was initially a bridgehead of *Pontes* in late 1st and early 2nd century in close relation with the Trajan's Dacian wars and the bridge over the Danube, and continued to protect the north end of it, but the urban progress of the civil settlement and its key economic position produced the granting of the status of *municipium*[12]. *Pontes* lost gradually its importance, a fact demonstrated by archaeological evidence[13]. The same situation occurred also in case of the fort at *Dierna* which was initially a bridgehead and later became a *municipium* in early 3rd century due to the urban progress of its civil settlement[14], while the 1st century Roman fort at Tekja[15] lost gradually its military importance in the next two centuries[16]. That explains why in the collective mentality, mirrored even in the official 4th century administrative nomenclature, the right bank derivative installations like *Transdierna* and *Transdrobeta* continued to be considered secondary in relation with the mother places north of the Danube and were labeled with the preposition *trans*-which has the same meaning as *contra*-, even if the situation had changed significantly and the importance of military and economic life had moved south of the river shortly after 275.

We are ill-informed on the 2nd-3rd century situation of places like *Lucum* and *Alba* normally situated on the left bank of the river that produced places across the Danube termed *Translucum* and

[5] Kanitz 1891, 45-48, fig. 25-27; Garašanin 1951, 147-148; Gudea 2001, 80-81; Mirković 1968, 112-113; Vucković 1964, 172-182; 1967, 21-28; Garašanin, Vasić 1980(1), 8-41; 1980 (2) 34-52; 1987, 85-116; Garašanin, Vasić, Vujović- Marjanović 1984, 25-84; Garašanin, Vasić, Marjanović-Vujović 1984, 55-84; Vasić, Kondić, 1986, 542-560; Gudea 2001, 79-81; Vasić 1991, 308-310.

[6] Proc. *De Aedif.* IV 6.8: τού τον δὲ τοῦ Ζάνης οὐ πολλῷ ἄποθεν φρούριον μένέστι, Πόντεξόνομα.

[7] A mid-3rd century inscription (IDR II 190) records *curial*(*es*) *territ*(*orii*) Συc(*idavenses*) who reconstructed a temple from the foundations in the town (Tudor 1978[4], 206-207).

[8] Ivanov 1997, 482. The author seems to ignore the fact that *Nono* (Νονῷ) in Proc. *De Aedif.* IV 6 is mentioned as an older variant in *ND* as *Burgo Zonoi*. e. *Novo* (XLII 28, 36). A precise location cannot be offered but its name has been proposed by Vasić 1997, 166, n. 31 to be connected to a stamp DARP ΣON found at *Augustae* who suggests, with great reserve, the location of *Burgus Novus* at present day Desa.

[9] Kanitz 1882, 56; 1909, 469-471; Garašanin 1951, 158; Kondić 1965, 88-89; TIR L 34, 1968, 95; Gudea 2001, 90 no. 25a.

[10] By not being recorded in the *It. Ant., Crispitia* breaks, in a certain way, the pattern of parallelism showed by the document with the Dacian section in *ND*; TIR L 34, 1968, 71 s. v. *Košava*.

[11] e.g. *NDOcc*. XXXII 41: *Contra Bononiam* (*Panonia Secunda*); XXXIII 49: *Contra Acinco* (*Valeria*); 55: *Contra Tautantum* (*Valeria*); XLI 21: *Contra Reginam* (*Moesia Prima*); 33: *Contra Margum* (*Moesia Prima*).

[12] Bărcăcilă 1937; Davidescu 1980, 54; 93-100.

[13] Vasić 1986, 554; 1991, 308, 310.

[14] Tudor 1978[4], 17-23; Benea, Șchiopu 1974, 115-125; Benea, 1975, 91-98; 1976, 203-214; Bodor, Winkler 1979, 141-155; Ardevan 1996, 243-246; Gudea 2001, 74, no. 15.

[15] Kanitz 1977, II, 51-52; Mirković 1968, 110-111; Kondić 1974, 42; Gudea 2001, 74, no. 15; Cermanović-Kuzmanović 2004, 14, 18-34.

[16] The auxiliary fort, 100 x 84 m in size, was built in the early first century, on the left bank of the Tekija stream; it garrisoned a military unit of mixed composition, *cohors IX Gemina voluntariorum, V Gallorum* and probably a fleet squadron. In the fourth century (Diocletian-Constantine I), a smaller, quadrangular fortification of *quadriburgium* type, measuring 32 x 25 m, replaced the old type of auxiliary fort; stamped pieces DIERTRA found at *Dierna*, on the left bank of the Danube (Benea 1977, 322; Vasić 1997, 167) alludes to the reshuffling of the old fortification; bricks with stamps DA(*acia*) R(*ipensis*) DIANA and D(*acia*) R(*i*)P(*ensis*) DIERNA were also found in the Tetrarchic fortlet; TIR L 34, 43; Cermanović-Kuzmanović 1969 (1), 149; 1969 (2), 269; 1983-1984, 338; Vasić 1997, 165.

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Fig. 2 – The Danube Gorge in the mountainous region between Ciucarul Mic (Romania) (left) and Mali Strbac (Serbia) (right) displaying the rocky, white wall that gave the name of a pair of place names, *Alba* and *Transalba*, the latter controlled by *auxilium Milliarensium*.

Transalba (unidentified).

Translucum and *Transdierna* have already been located at Hajdučka Vodenica[17] and Tekja respectively[18]. *Alba*, presumably an older 2nd-3rd century place on the left bank of the Danube, became a bridgehead in the 4th century in relation with the southern bank where *Transalba* have laid. The place is not recorded in the itineraries or literary sources but it must be strongly supposed to have existed by juxtaposition with *Transalba* in *ND*. *Alba* expresses something connected to white color (fig. 2), a place or environment, and it would be pure speculation to locate it more precisely in lack of any clear archaeological evidence[19]. The record of *Translucum* in *ND* implies a *Lucum* on the left bank across the Danube. Suggestion could be done for Dubova where some caves at Veterani and Cuina Turcului yielded a stamped tile DRPDIERNA[20] as well as some few small objects of Roman provenance[21].

Siosta and *Sostica* are two elusive place names in *ND*. Read as such, as specific toponyms, they have no apparent direct meaning, neither as wording nor derivatives. *It. Ant*, *TP*, and *Ravennate Cosmography* (further *Rav. Cosmogr.*), champions alike in displaying corrupted forms of place names do not offer any such toponyms. Dečev, on the other hand, errs in locating *Siosta* 'am linken Donauufer an der Einmündung des Žiul, (i. e. Jiu River), jetzt Kalarasch'[22].

A close example would be *Sostra* (Troian Hissar, near the village of Lomets), on the upper *Asamus* (Osăm) river, in Lower Moesia, mentioned in *TP* (VII 2 o) as a *mutatio* on the road *Oescus-Philippopolis*[23], *-sosta*, in Dečev's opinion[24], would be a suffix, like in PN *Pri-sosta*, *Pro-sostus*. *Sostica* can be brought towards a certain meaning. The accepted by-form *sospes* as, *hospita* and *hospes* in the sense of 'saviour', 'preserver', e.g. *Iuno Sos-*

[17] Čerskov 1967, 57-59; 1968, 65-67; 1969, 142-143; Kondić 1974, 48-49, no. 14; Vasić, Kondić 1986, 551; Zahariade 1996, 249-251.

[18] Cermanović-Kuzmanović 2004, 12-16. Add also Kanitz II 1877, 39; Swoboda 1939, 55-56; Jovanović 1982-1983, 319-330 (Hajdučka Vodenica); Tomović 1982-1983, 345-353 (Tekja).

[19] The Cazanele Mici sector of the Danube gorge, ca. 3 km in length, located between the mountainous massives Ciucarul Mic (Romania) and Mali Strbac (Serbia) shows a high rocky river wall and displays, on either side, a glaring, white calcareous stone structure. The fortlet must be searched on the left bank where stress must be put on the identification of a *quadriburgium* of at least Hajdučka Vodenića size.

[20] IGLR no. 422 = IDR III/1,63.

[21] TIR L 1968, 56; Boroneanţ 1973, 10. At Dubova, a settlement was identified on a height called 'Veterani' where the stamped tile was found. An attempt to locate *Lucum* at Dubova has been made by D. Bondoc in a study which remained unfortunately still unpublished. However, *Lucum* must have presumably displayed a *quadriburgium* like defense structure, similar to its pair on the right bank of the Danube.

[22] Dečev 1976, 447.

[23] Kanitz II 1877, 97; Dečev 1976, 467. Several altars found in the area indicate the presence of some 2nd and 3rd century cohorts in this important strategic point (ILB no. 260-263).

[24] Dečev 1976, 467.

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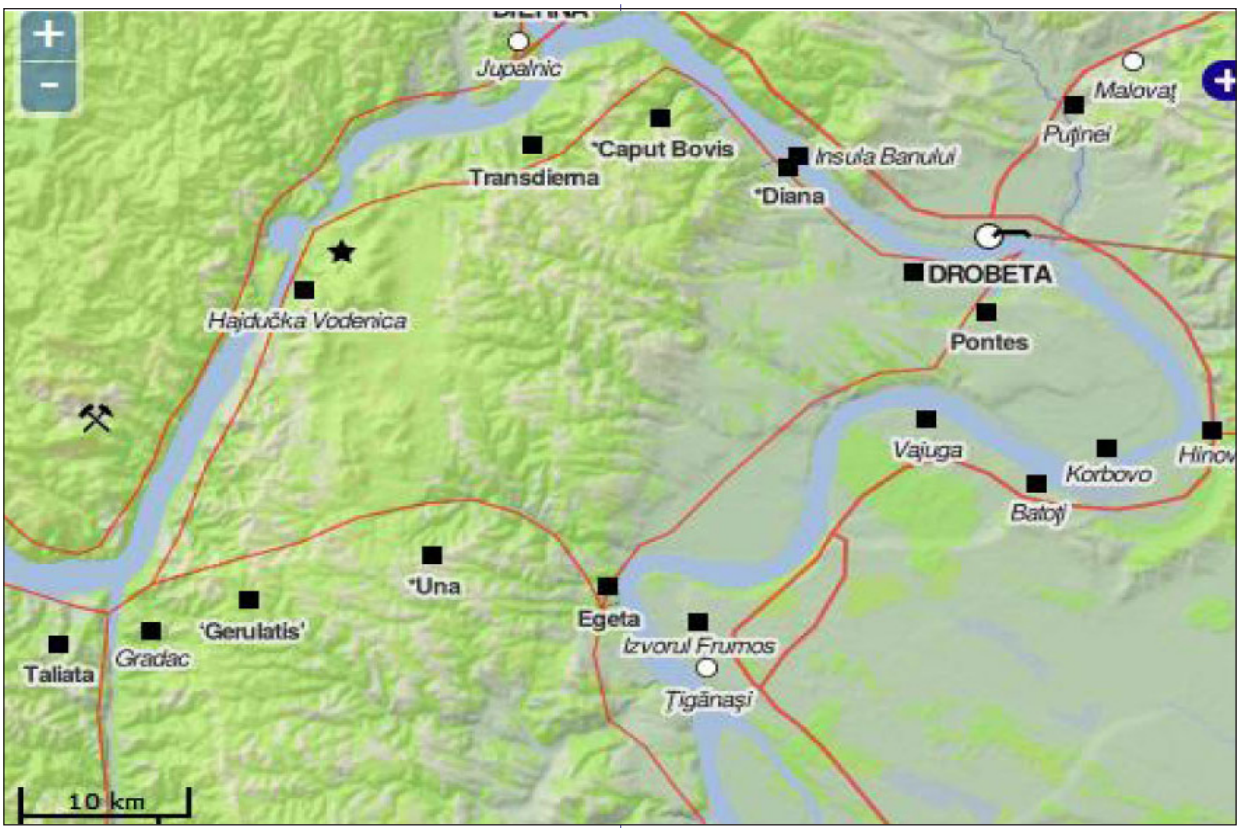

Fig. 3 – The road from *Taliata* to *Aegeta* in *Tabula Peutingeriana*

pita[25] from where the verb *sospito-are* 'to defend', 'to preserve' could be easily corrupted in *sostico* from where *Sostica* with the meaning of 'defense', 'fortified place'. Defense what?

Apparently we must accept a corrupted form or a *hapax* for the toponym *Siosta* which would easily makes us think to *-sosta*, from where *Sostra* would be at hand, only that the locations of the two are different and a far from one another.

As *ND* mentions only three traditional bridge heads (*Dierna, Drobeta*, and *Sucidava*), it is hard to believe that *Siosta* or *Sostica* or both would have been also bridge heads; the two places must be therefore identified somewhere on the right bank of the Danube. They are the only forts in *Dacia Ripensis* in which *cohortes* under the command of a tribune were garrisoned (see below). A *cohors* in the 4th century is generally estimated to have been 300 men in strength[26]. Such strength requires larger space.

Diana/Davidovac-Karataš[27] bore also the name *statio cataractarum Diana* according to a late 2nd–early 3rd century inscription found in the fort[28]. The name DIANA appears on a significant number of stamped bricks in different variants: DARDIANA (Tekja, Orşova, and Karataš) or DRPDIANA (Karataš)[29]. On the other hand, *Zanes, Záneç* recorded only in Proc. *De Aedif.* IV 6. 6 is commonly identified with the ruins at Kladovo where a 1st-3rd century auxiliary fort is apparently supposed to have functioned. Procopius does not concurrently mention *Diana* but says only that *Zanes* is 'a very old little town'. The *Diana* fort (*statio cataractarum Diana*) at Karataš would fit Procopius' description better than Kladovo[30]. *Zanes* sounds closer to *Diana* and the equation Diana=Zanes is accepted by M. Garašanin, V. Kondić and J. Rankov[31]. The fort at Kladovo (100 x 54 m=0.54 ha) remains as yet unidentified with any other ancient place names and hypothetically could be taken into consideration for one of the two mysterious places in *ND*, *Siosta* or *Sostica*. Procopius indicates Pontes immediately after *Zanes* (=*Diana*). Another attractive solution for a sizable fort in the surroundings, capable to accommodate 300 men of a cohort, is the 4th-6th century triangular in shape installation (98 x 108 m=1.05 ha) located on a now flooded Danube

[25] Hermans 2012, 327-336.

[26] Grosse 1920, 20-25; Várady 1961, 367, 378; cf. Jones 1964, 378-380, 681-682; gives 500 men as strength for a *cohors* type of infantry unit; Hoffmann 1969, 240; cf. Várady 1961, 378 n. 167.

[27] Rankov 1980, 61-84; 1984, 11-17; Vasić, Kondić 1986, 552-553, 556-557; Kondić 1987, 39-42, 45-47; Rankov 1987, 16-36; Vasić 1991, 308-311, passim.

[28] Kondić 1987, 45-47.

[29] Vasić 1997, 150, 165-169.

[30] Gudea 2001, 78 no. 18.

[31] Garašanin 1995, 35-39; Kondić 1987, 45; Rankov 1980, 62.

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island, Insula Banului (Gura Văii)[32].

The *It. Ant.* makes a big leap from *Taliata* to *Aegeta*, ignoring thus to mention places on an entire sector along the big bend of the Danube course. In exchange, the key positions *Dierna* and *Drobeta* are mentioned by *TP* (VI 3 o; VI 4 o) together with their right bank pairs, *Transdierna,* and *Transdrobeta* (fig. 3). The only reasonable explanation of that anomaly is that the author(s) of *It. Ant.*, possibly in its final late 3rd century revised version, considered that the important legionary, cavalry, and naval base at *Aegeta* could have been reached by land much faster and safer from *Taliata*, the eastern-most center of neighbouring *Moesia Prima*, using the functional road recorded by *TP* (VI 3 o) over the Miroč plateau, through *Gerulata*/Miroč fort (135 x 150 m)[33] and *Una*/Kraku Krčag[34] than the time consuming circumnavigation of the big river buckle marked by difficult segments at Đerdap-Cazane and Iron Gates[35].

The on ground surveys and scholarly expertise identified most of the ancient place names downstream *Aegeta*. The most disputed are apparently *Burgus Novus* and *Crispitia* (see above). *Burgus Novus* is believed to have corresponded apparently to *Nono* in Procopius and was ostensibly identified with the ruins at Radujevać[36]. However, in the apparently regular deployment list of the legion *XIII Gemina*, *Burgus Novus* appears between *Transdrobeta* and *Dierna*, although before *Diana* (not mentioned). *Burgus Novus* expresses a new building, erected *a fundamentis* or a thoroughly rebuilt and renamed fort, but sizable enough to garrison a legionary strength of ca. 600 men. *Diana* (see above), given its size (123 x 128 m=1.57 ha) and the discovery of 4th century stamped tiles bearing LEXIIIGSP[37] cannot be ignored among the newly built forts in early 4th century, probably under Constantine I, partially based on older structures[38]; it would be reasonable to suppose the presence of a legionary detachment at *Diana*. The sizable number of stamps on tiles and bricks bearing DIANA, DRP DIANA, DARDIANA found in a significant number in other places[39] within the territory of the *XIII Gemina* cannot be eschewed but, unfortunately, any identification with a place name in *Notitia* whose modern name is not known as yet is risky.

Crispitia is a peculiar place name. A *Crispiana*, modern Szárkány or Keresztur, appears in the *It. Ant.* (267. 9) between *Cimbrianis* and *Arrabona*, in *Pannonia Superior*. *Crispitia* must have possibly reproduced the impression of an on looker of a wavy terrain if one accepts a transposed derivative from the transitive verb *crispico-* are referring to the wind which ruffles the water. For *Crispitia* (see note 10), suggestion has been made for the ruins at Košava[40].

The Dacian section of *ND* shows significant traces of tradition previous to Tetrarchic epoch. It might be that *Valeriana* recalls the name of *Valerianus* who reproduces either the name of an important general or more likely that of the Emperor Valerianus himself, like in a later case of *Gratiana* derived from the Emperor Gratianus[41] or *Valentiniana* from Valentinianus I[42].

There are other good Gallienic traditions of second half of the 3rd century, particularly archaeological: the building of an additional rampart wall east of the former legionary fortress at *Oescus*, known as *Oescus II*[43], in the same manner in which the eastern rampart wall of *Novae II* was built[44]. The military facilities at *Oescus* and *Ratiaria*/Arčar[45] the future headquarters for the *V Macedonica* and the *XIII Gemina*, must have been rebuilt in late Gallienus' epoch, before the final transfer of the regiments south of the Danube[46]. Aurelian could

[32] Davidescu 1977, 37-42; Tudor 1968[4], 279. The pottery kilns, fragmentary amphorae, kitchen pottery, and oil lamps found during the rescue excavations undertaken shortly before the complete flooding of the area at the dam of the hydropower station Porţile de Fier I indicate clearly 4th-6th century levels of occupation.

[33] Kanitz 1892, 39-40; 1909, 450; Swoboda 1939, 50; Garašanin 1951, 194; TIR L 34, 1968, 60; Gudea 2001, 95, no. 33.

[34] *TP* VI 3 o; *Rav. Cosmogr*. IV 7; Kanitz 1892, 40; TIR L 34, 1968, 115.

[35] *Gerulata* and *Una* are both recorded in *TP* VI 3 o.

[36] See note 8-9; Kanitz II 1877, 469-470; Garašanin 1951, 158; TIR L 34, 1968, 95; Ivanov 1997, 482.

[37] Vasić 1997, 160, 161.

[38] Vasić, Kondić 1986, 553; Vasić 1991, 308.

[39] Vasić 1997, 164, table 3.

[40] TIR L 34, 1968, 71; see also note 9.

[41] *NDOr.*, XLI 26; XXXIX 27.

[42] Proc. *De Aedif.* IV 11. 20.

[43] Ivanov 1990, 917-927; 1998, 51; 54-91.

[44] Čičikova, Sultov, Najdenova, Dimitrova-Milčeva 1980, 80-83; Čičikova, Najdenova 1981, 47-48; Sarnowski 1984, 29-46; Genčeva, Dyczek, Biernacki, Sarnowski 2003, 80-84. The stone precincts towards east bonded against pre-existing 2nd-3rd century defense walls of *Oescus* I and *Novae* II, may possibly be explained as additional areas to receive, in a first phase, troops or structures of civil administration from the Trajan's Dacia which possibly began to be withdrawn from some north Danubian territories already under Gallienus.

[45] Velkov 1966, 155-175; Giorgetti 1980, 13-34; Velkov1976, 24, 63, 86; Giorgetti 1983, 19-39; Atanasova-Georgieva 1986, 437-440; Dimitrova-Milčeva 1990, 864-865.

[46] e.g. The coins series found in the towers no. 4, 5 and 13 at *Oescus* II begins with Valerian's reign (Ivanov 1990, 920); the fact is not always mentioned by the authors of

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have officially sanctioned the partial withdrawal measures taken by Gallienus and practically completed the process. There was a systematical reassignment of a sizable number of auxiliary troops and two legions, even if probably much reduced in strength, as well as an entire administrative structure and bureaucratic apparatus that required ready-made and functional installations on the right bank of the river[47].

Assignable to the Gallienic period is the beginning of the reshuffling of some of the former 1st century auxiliary forts, although in a new architectural manner: *Utum*[48], *Valeriana*[49], *Augustae* II[50], *Bononia*[51], and maybe even the building of the *Sucidava* enclosure stone wall[52]. We are still ill-informed on the chronological relation between the forts no. I, II and III at *Aegeta*, where one of the installations, the elongated type of *quadriburgium* (*castellum* II) (84 x 33 m=0.27 ha), belongs apparently to the Tetrarchic period; a rectangular 140 x 150 m=2.1 ha in size auxiliary fort (*castellum* I) in the same place[53] seems earlier in date although was not fully investigated because of the flooding of the area by the waters of the hydropower station Porţile de Fier II[54]. To the west, *Diana*, *Pontes*[55] and apparently *Drobeta*[56] yielded evidence of significant repairs in the third quarter of the 3rd century.

Beside the routine repairs, the Tetrarchic period stands out particularly through a solid and judicious building policy in which the implementation of a totally new type of fortlet not standardized in size but in layout, holding roughly four rounded or rectangular corner towers was epoch making in the Roman Empire[57]. Tactically, on a river frontier, *quadriburgia* literarily thickened the defense and was an important contributor to breaking down compact enemy forces while crossing the river. Moreover, they could billeted, as clear cases show in *Dacia Ripensis*, specialized small military strength for specific activities, such as repair, small scale buildings, patrol, watch, and surveillance.

The Tetrarchic significant building interventions on the Dacian sector stimulated by Diocletian's visits at *Oescus* (291) and *Ratiaria*, *Cebrum, Variana* in October 294[58] led to the construction of a substantial number of installations of quadriburgium type, some recorded in *Notitia*: *Transalba* (?), *Translucum*; *Transdierna*, *Aegeta*, other in Proc. *De Aedif* (IV 6. 5-6): *Ducis Pratum* (Δουκεπράτου) identified with the fort on the Ada-Kaleh island (now completely underwater)[59] and *Caput Bovis* (Καπούτ βοες), supposed to be the *quadriburgium* at Šip[60], at the entrance in the Trajan's canal[61]. A certain number of *quadriburgia*, not recorded in the historical sources, have been discovered due to archaeological excavations and await identification with ancient sites: Malo Golubinje[62], Donje Butorke[63], Puţinei[64], Hinova[65], Glamja-Rtkovo[66], possibly *Mareburgu,* Slatinskareka[67], Milutinovac-Brloga (*Armata*?) (Proc., *De Aedif., IV 6. 11*)[68].

the excavations in order to set in motion the preconceived scheme of the so called 'late 3rd-early 4th century' general reconstruction work (cf. Ivanov, Ivanov 1998, 78). The literature on late *Oescus* I and *Oescus* II is considerable in number; a complete list with direct and indirect references until 1998 is given by T. and R. Ivanov in the monograph on *Ulpia Oescus* (1998), 188-196.

47 The reassessments of the importance of Gallienus' reign in the reorganization of the Lower Danubian *limes* and commencement of the abandonment of Dacia: Daicoviciu 1979, 651-659; Barbu 1998, 141-149; Zahariade, Phelps 1999, 313-327; Oprean 1999-2000, 393-406; Ruscu 2000, 272-273; Protase 2001, 264-265; Benea 2001, 285-300; Găzdac 2002, 97, n. 793; Hartmann 2006, 81-117; Benea 2010, 643-648; Petolescu 2010, 281-292; Benea 2012 (2), 205-218 .

48 Škorpil 1905, 462; Forni 1959, 1269; Saria 1961, 1189; Ivanov 1974, 235, fig. 62; 1997, 484; Zahariade 1997, 72, no. 10.

49 Škorpil 1905, 465; Beševliev 1955, 285; Forni 1959, 1269; Ivanov 1997, 484; 548; Zahariade 1997, 72, no. 8.

50 Forni 1959, 1269; Mašov 1990, 21-45; Dimitrova-Milčeva 1990, 866-867; Ivanov, 1997, 483; 543-548; Zahariade 1997, 72, no. 71, no. 5.

51 Kanitz I 209-210; 246; Patsch 1897, 703; Atanasova 1974, 337-338; Velkov 1976, 88, 279; Ivanov 1997, 481, 538.

52 Barbu 1973, 27-55; Tudor 1978[4], 423; Toropu, Tătulea 1987, 73-87.

53 Kanitz 1882, 40-42; 1909, 451-453, 457; TIR L 34, 1986, 37; Petrović 1984, 160-182; 1986, 369-377.

54 Petrović 1984, 162.

55 Kondić, Vasić 1986, 550.

56 Florescu 1967, 144-151.

57 Zahariade 1999, 3-16.

58 Enßlin 1948, 2434, 2439-2440; Barnes 1976, 187.

59 Bondoc 2005, 793-800.

60 Milosević 1982-1983, 357-362.

61 Kondić 1992-1993, 49-53; Garašanin 1995, 35, 38-39.

62 Popović 1969, 102; 1970, 58; Vasić, Kondić 1986, 555.

63 Cermanović-Kuzmanović 1964, 52-53; 1969, 165-166; 1979, 127-134; Kondić 1974, 50-51, no. 16.

64 Benea 1977, 37-46.

65 Davidescu 1978, 76-86; 1980, 77-86.

66 Gabricević 1986, 71-94.

67 Jovanović, Korać 1984, 194-200; Jovanović, Korać, Janković 1986, 378-400.

68 Milosević, Jeremić 1986, 245-263.

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The army of *Dacia Ripensis* in *Notitia Dignitatum*

1. The legions

The Tetrarchic regime seems to have initially preserved the Aurelianic redeployment with the two pivotal legions south of the Danube, *V Macedonica* at *Oescus* (*It. Ant.* 220. 5) and *XIII Gemina* at *Ratiaria* (*It. Ant.*, 219. 3)[69].

Speaking strictly of the army in *Dacia Ripensis* during Aurelian, epigraphic evidence is too slim to enhance even a sketchy picture of these provincial forces[70]. The army withdrawn from the Trajanic Dacia must have been still of some strength, although probably sensibly weakened by the first half of the 3rd century events. With few exceptions, the auxiliary troops reassigned south of the Danube are only conjecturally attributed to Aurelian's reign[71]. Therefore, where are the troops withdrawn and redeployed by Aurelian in no less than 12-15 forts (except the legionary fortresses from *Ratiaria* and *Oescus*)?. The fact must have an explanation.

However, some evidence would suggest that Diocletian' administration is responsible for depleting the Dacian frontier of military strength three times in only five years. *Vexillations* from the *V Macedonica* and *XIII Gemina* were dispatched to Egypt (293) on the occasion of the quelling of the revolts in the cities of *Bousiris* and *Coptos*[72] and for ampler military operations against L. Domitius Domitianus and his *corrector* Aurelius Achilleus (297-298)[73]. The *vexillations* from the two Dacian legions never returned to *Dacia Ripensis*[74]. They are detectable in the Egyptian section of *ND* as *legio V Macedonica* at *Memfis*[75] and *legio XIII Gemina* at *Babilona*[76]. A considerable number of units from *Dacia Ripensis* were dispatched three years later on the Persian front[77] during the counter offensive unfolded by Galerius in 298. The dispatch was possible because of lack of any potential danger from across the Danube. We are ill-informed on the Dacian units redeployed on the Euphrates front, but one can recall the statements of Festus[78], Eutropius[79], and Orosius[80] on the massive use of Dacian forces. Galerius' arch in Thessaloniki displays scenes showing participation of Dacian troops against the Sassanian army[81]. They are symbolically illustrated as wearing the traditional Dacian cap. A panel on the south pier facing East is bracketed on the opposite end by a *Victoria-Felicitas* in a conch-shell niche. Kinch[82] used the evidence of the personification of the place and the Dacian military costume to interpret the scene as Galerius calling together his Dacian compatriots near Serdica for the campaign against the Persians. Kinch also pointed out that the bulk of the Galerius' army was formed mainly of troops recruited or brought from *Dacia Ripensis*[83]. It is also possible that considerable parts of the frontier army of the province were later employed by Licinius as early as 316 in the combat against Constantine in the battle of *Campi Ardiensis*, in Thrace.

Dacia Ripensis was the earliest territory on the Danube seized by Constantine from Licinius following the battle of 316[84], when the province entered under the administration of the first and was presumably the primarily submitted to military reforms.

The Dacian section of *ND* indicates a considerable Constantinian intervention[85] in the previous frontier organization of the provincial Aurelianic and Tetrarchic army[86].

What we finally detect is basically a Constantinian structure of the army with minor 4th century updates, sometimes difficult to disentangle. There are five distinct types of units listed in five groups, rigorously organized, although not in strict geographical order. In general, it follows the known

[69] Ritterling 1925, 1580-1582, 1715-1723; Moga 1985, 30-33; Bărbulescu 1987, 32-34; Sarnowski 1990, 855-861; Dietz 1993, 284-285; Ivanov 1997, 482; 484; Zahariade 2001, 26.

[70] Zahariade 2001, 25-28.

[71] Zahariade 2001, 25-28.

[72] Bowman 1978, 25-38; 1984, 33-36.

[73] Schwarz 1975; 1977, 217-220; Thomas 1976, 253-279; Kolb 1988, 325-343; Zuckermann 1994, 68-70; Carrez-Maratray 2000, 31-32.

[74] Dietz 1993, 301.

[75] *ND* XXVII 14.

[76] *ND* XXVII 15; Barnes 1976, 181-182; Eadie 1996, 74, 78.

[77] Williams 1985, 84.

[78] *Eutropius*, *Brev*. 25.

[79] *Brev*. 25.

[80] *Adv. Pag*. VII 25, 11.

[81] Pond Rothman 1977, 439, 440 fig. 18; Stanciu 1980, 399-409; Williams 1985, 84.

[82] Kinch 1890, 17-18.

[83] Cf. Williams 1985, 84.

[84] Di Maio, Zeuge, Bethune 1990, 67-80.

[85] Jones 1964, 99.

[86] For the Constantinian army reforms in general see: Zos. *Hist*. II 32-34 (highly negative); John. Lyd. *De Mag*. II 10; III 31; 40; *De Mens*. I 27 (deleterious); Mommsen 1910, 195-279; Nischer 1923, 12-13, 29-31; Parker 1933, 175-189; Klindert 1949; 1952, 87-108; van Berchem 1952, 87-108; Seston 1955a, 784-789; 1955b, 284-296; Jones 1964, 97-100; Stein 1968², 122-124; Luttwak 1978, 226-227; recently, Brennan 2007, 211-218.

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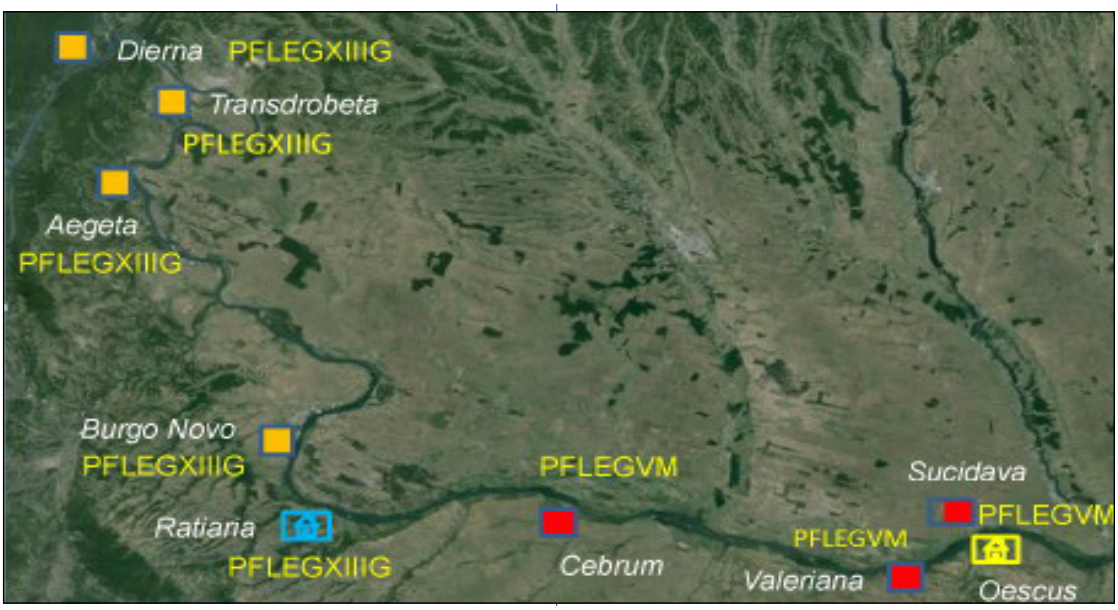

Fig. 4 – The basic deployment of the legions *V Macedonica* and *XIII Gemina* in *Dacia Ripensis* during de reign of Constantine and *Notitia Dignitatum*.

pattern in other Danubian provinces beginning with the group of *cunei equitum*, continuing with *auxilia/ milites, legiones*, *cohortes*, and finally *classis*, all with some remarkable particularities.

The massive use of *V Macedonica* and *XIII Gemina* in 293 and 295-298 that had already been deprived of significant cavalry strength by Gallienus[87] and probably later by Licinius, led literarily to a dramatic decrease in number of the provincial army[88].The Constantinian administration was the main author of the legionary redeployment on the Dacian river frontier, the way it is showed by *ND*, although the operation has antecedents.

The Aurelianic and possibly Tetrarchic stamped building material issued by *XIII Gemina* with the abbreviation: XIII (*Dierna*, *Ad Mediam*-Băile Herculane?)[89]; LEG(ionis) *XIII* G*(emina)* (*Praetorium*/ Mehadia?)[90]; LEG(ionis) *XIII* R*(atiaria)* (*Ad Mediam*; *Dierna*)[91]; L XIII GRAT (*Ratiaria*; Desa)[92] shows dispatch of detachments to *Ratiaria* and *Dierna* as main legionary centers, a fact also mirrored in *ND*[93], and also some temporary garrison or export of building material at *Praetorium* and *Ad Mediam*.

The picture showed by the *ND* indicates a marked pulverization of the effectives at a later period as well as the setting of additional legionary headquarters in a rather uncommon number, an operation which was most likely Constantinian in date (fig. 4).

The list indicates a breaking off of the effectives in five locations for legio *XIII Gemina* and four for legio *V Macedonica*[94]. Such a dispersion of the legionary strength is unusual for the 4th century Lower Danube provinces which show a division in two, or three at the most, main headquarters (cf. *Scythia*, *Moesia Secunda*, and *Moesia Prima*).

Exceptionally, the breaking off of the legionary effectives on the mid Danube occurred in the province of *Valeria*, where the *II Adiutrix* was sectioned in no less than six parts[95] and *Raetia*[96], where the *III Italica* appears to have been divided in five detachments, but in the latter case two drafts were dispatched *transvectione specierum*, therefore not in a permanent mission, but for policing the road from *Vimania* to *Cassiliacum*.

Such specific tasks are not indicated for the two Dacian legions (fig. 5). The *XIII Gemina* covered the Danube tract between *Aegeta* and *Dierna*, while the *V Macedonica* the segment *Utum-Cebrum*. There were functional bridgeheads and bridges for each legion at *Oescus-Sucidava* (bridge and bridgehead for the *V Macedonica*)[97], *Drobeta* (bridgehead) and *Dierna* (bridge and bridgehead for the *XIII Gemina*)[98].

[87] Benea 2010, 643-648; 2012 (1), 574-580; 2012 (2), 209.

[88] Luttwak 1978, 173, note 131.

[89] IGLR no. 416; 420; IDR III/1 no. 51; 72; Tudor 1960, 347 no. 54.

[90] IGLR no. 421; IDR III/1, no. 101.

[91] IGLR no. 415; IDR III/1, no. 47.

[92] CIL III 14597[4]; IGLR no. 401; Vasić 1997, 161.

[93] Tudor 1960, 345-347; Sarnowski 1985, 119; Vasić 1997, 161; Zahariade 2001, 26.

[94] Dietz 1993, 284.

[95] *NDOcc*. XXXIII 52-57.

[96] *NDOcc*. XXXV 17-19; 21-22.

[97] Tudor 1971, 155-192; 1978, 416-422.

[98] Marsigli 1726 I 22; II 15; Benea 1975, 92.

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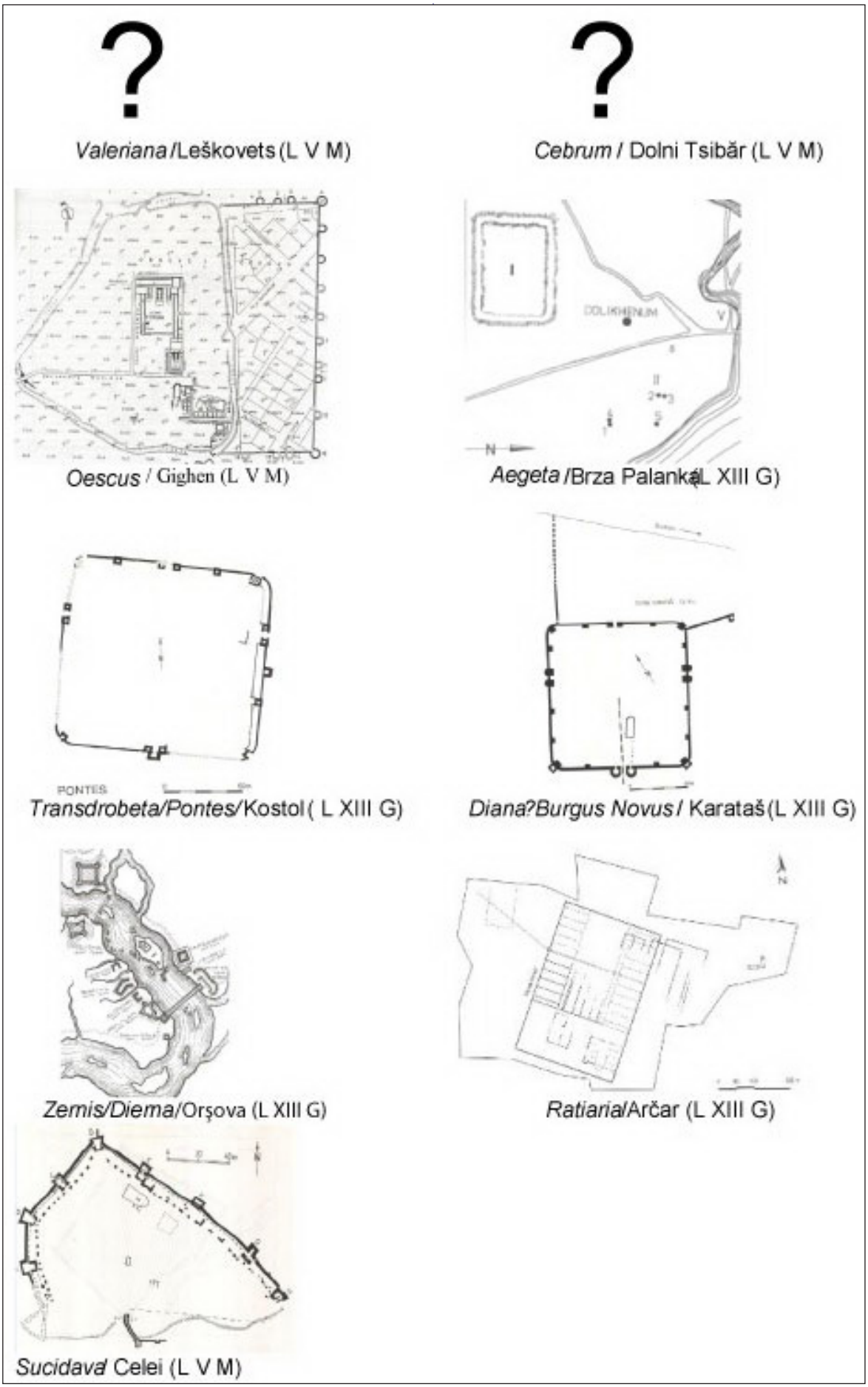
?
?
Valeriana/Leškovets (L V M)
Cebrum / Dolni Tsibăr (L V M)
Oescus / Gighen (L V M)
DOLICHENUM
Aegeta /Brza Palanka (L XIII G)
PONTES
Transdrobeta/Pontes/Kostol (L XIII G)
Diana?Burgus Novus / Karataš (L XIII G)
Zemis/Diema/Orşova (L XIII G)
Ratiaria/Arčar (L XIII G)
Sucidava Celei (L V M)

Fig. 5 – Legionary headquarters in *Dacia Ripensis* at the time of *Notitia Dignitatum.*

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The list of the *XIII Gemina* deployments shows a coherent geographical order from *Aegeta* westward: *Aegeta-Transdrobeta-Burgus Novus-Dierna*, provided that *Burgus Novus*was situated between *Transdrobeta*, to the east, and *Dierna* to the west[99]**.** The main headquarters, *Ratiaria*, is placed at the end of the list as the eastern most one of the *XIII Gemina*.

Theoretically, if we accept the idea of 3,000 men for a riparian legion in the Constantinian period and shortly later, the strength of each detachment in their locations would have been approx. 600 men[100].

The Constantinian intervention seems to have increased the number of the headquarters of the legion to five and produced some changes in marking the stamped tiles and bricks: LEG(*ionis*) *XIII* G(*eminae)* P(*ars*) S(*uperior*) (*Diana*, *Zanes*, *Drobeta*, *Aquae*, *Sucidava*[101]; LEG(*ionis*) *XIII* G(*eminae*) P(*ars*) C(*iterior*) (*Ratiaria*). If P(*ars*) S(*uperior*) means the sector upstream Danube from *Diana* to *Aquae*/Prahovo[102], P(*ars*) C(*iterior*) stands for p(*ars*) i(*nferior*) which means the limes segment *Aquae-Almus* including *Ratiaria*[103].

The deployment list of the *V Macedonica* is not so orderly configured in the document. *Legio V Macedonica* shows four locations in *ND*: *Va<le>ri<ni>ana*, *Cebrum, Oescus*, and *Sucidava*. The picture shows irregularities in the order of citation of the geographical position of the places: *Variniana* i.e. *Valeriana* to the east, *Cebrum* to the west, and again *Oescus*, the main headquarters, eastward.

The *Sucidava* legionary detachment placed at the end of the list seems likely a later insertion in the Dacian section. The fortress is very much suspected to have its origins in Gallienic times[104]; the stamps LVMCORSIII and CORS [L]VMCIIII[105] maybe Aurelianic or very early Tetrarchic in date[106]; in *ND* the place appears in an unusual position. It might be that the record of the place was due to the inauguration of the bridge *Oescus-Sucidava* (July 328). *CTh.* VI 35 gives *Yscum=Oescus*[107]. *Sucidava*, as a bridgehead in front of *Oescus*, connected the province to the reoccupied part of the former Trajanic Dacia[108] under the new Constantinian administration. That implies maybe that in the Tetrarchic or Licinian period the *Sucidava* legionary detachment could have been withdrawn from various reasons and was missing in a possible and probable first existing list of the Dacian troops drawn up before 328. The later Constantinian building intervention and the significant reconsideration of the importance of the place, where a legionary detachment was reinstalled, prompted the record of the changes and the addition of the place to the list as a headquarters of the *V Macedonica* in the newly revised variant drawn up much later, maybe in a post Constantinian epoch[109]. Thus, the late 4th century final revised form of the Dacian section has caught the picture of the garrison of the Constantinian *Sucidava*.

The interventions in the territory of the V *Macedonica* is detectable in the issue of stamped building material bearing: LVMOES [L(*egionis*) V M(*acedonicae*) *Oes*(*co*)] and LEGVMOES [Leg(*ionis*) V M(*acedonicae*) Oes(*co*)] (*Oescus*,

[99] See note 8.

[100] The size of the Constantinian riparian legions: Mommsen 1889, 263; Marquardt 1891, 366; Várady 1961, 369; Jones 1964, 380; 681-682; Clemente 1968, 147; exceptionally, the size could have been much smaller: Amm. Marc. XVIII 9.3; XIX 2.4; XXVII 12.16; Zos. *Hist. Nov*. V 45; Luttwak 1978, 175.

[101] IGLR no. 287; 403; Tudor 1960, 346 no. 42; 347, no. 52; Dusanić 1987, 344-345; Dietz 1993, 293; Vasić 1997, 161.

[102] Tudor 1960, 345-347; Dušanić 1978, 343-345; Sarnowski 1985, 119; Vasić 1997, 161.

[103] *Aquae*/*Ad Aquas* (present day Vidrovac), apparently a significant military station on the Danube in the 4thcentury, was an important urban center in the 6th century (Proc. *De Aedif*., IV 6.19). Surprisingly, *Aquae* is not recorded in *Notitia*, although the *It. Ant.* mentions it. Tiles and bricks with the stamp AQVIS were found at Bordjej, *Bononia*/Vidin, and Vidrovac: DA*(ciae)* R*(ipensis)* AQVIS. For *Aquae* see: Tudor 1960, 345, no. 39; 346, no. 43; Jovanović 1996, 263-264; Petrović 1997, 123-125; Vasić 1997, 166.

[104] Barbu 1998, 141-50.

[105] IGLR no. 279, 280-3, 285.

[106] Sarnowski 1985, 117; Zahariade 2001, 26.

[107] On the Oescus-Sucidava bridge: Aur. Victor. *Epit*. 17; 41; *Chron. Pasch.* 233; Euseb. *v. Const*. III 50; Theoph. Conf. *Chron*. 41; Kedr. *Chron*. 517. The sources gathered by Tudor 1971, 161-164. On this occasion, tile stamps with OESCO CO I and ΩISCUS (Vasić 1997, 168; cf. Sarnowski 1985, 119 who dates the type later) could have been issued.

[108] The Constantinian milestone found at *Sucidava* (IGLR, no. 278) dates from 328 and mentions *mille passum I* (1,479 m= 1,479 km) indicating the repair on that distance of the old road to the north, from *Sucidava* to *Romula*. The evidence becomes extremely important in this context, especially that the piece was found *in situ*, and indicates the solidity of the Constantinian reoccupation of the southern Dacia in which the roads building must have held a key role.

[109] If the presence of a detachment of *V Macedonica* at *Sucidava* (XLII 39) previous to Constantine reign (Aurelian or Tetrarchy) (Sarnowski 1985, 119; Vasić 1997, 155-157; Zahariade 2001, 26) is supported by epigraphic evidence, the Constantinian building program including the construction of the bridge across the Danube (Tudor 1978[4], 430; Toropu, Tătulea 1987, 85) would have implied the presence of a draft from *V Macedonica* in that place.

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Pliska, *Romulianum*/Gamzigrad, *Sucidava*)[110]; PRLVMOES [*pr*(*raepositus*) *r*(*ipae*) *l*(*egionis*) *V M*(*acedonicae*) *Oesc*(*o*)], (*Oescus*, *Romulianum*, *Bononia*)[111]; PRELVM, PRLVM [*pr*(*a*)*e*(*fectus) l*(*egionis*) V M(*acedonicae*)] (*Oescus*)[112], but also specific references where its detachments had been dispatched: PRLVMVAL [*P*(*raepositus*) *r*(*ipae) l*(*egionis*) *V M*(*acedonicae*) *Val*(*erianae*)] (*Oescus*)[113]; LVMVAR [L(*egionis*) *V M*(*acedonicae*) Var(*inianae*) (*Sucidava*, Orlea, *Varinia*)[114]; PRLVMVAR [*P*(*raepositus*) *r*(*ipae) l*(*egionis*) *V* M(*acedonicae)* Var(*inianae*)] (*Oescus*)[115]; PRLVMVTO [*P*(*raepositus*) *r*(*ipae*) *l*(*egionis*) *V M*(*acedonicae*) *Uto*] (*Oescus*)[116]; LEGVM SCRO […][117] (*Sucidava*) has apparently no geographic meaning unless is to be understood LEG(*ionis*) V M(*acedonicae*) S(*ub*) C(*ura*) RO(*muli*?) which would render the name of a *praepositus*.

T. Sarnowski[118] and K. Dietz[119] tried to refine and elaborate on the chronology of these types from different perspectives. While T. Sarnowski makes a unique group of all the above mentioned types which he dates during the reign of Constantine I, K. Dietz makes a *distinguo* between LVMOES and LVMVAR (phase III) types and dates them under Constantine I; the pieces marked *P*(*raepositus*) *R*(*ipae*), set before the name of the legion followed by a toponym (phase IV) date, in Dietz's opinion, during Valentinian I's reign. However, the chronology offered by the two scholars is only conjectural in both cases, for the pieces were not found in clear stratigraphic context. Other types apparently in connection with *Legio V Macedonica* e.g. PROES, PRVAR, PPRIPVAR, PPRIP are differently dated by the two epigraphists either during Constantius II or in a post Valentinianic epoch.

Some of the place-names are recorded on stamps and render sections of the Danubian *ripa* under the control of legionary detachments of *V Macedonica.* Particular types of brick stamps bear the name of legionary headquarters and are confirmed by *ND*: CEBR(*o*), VAR(*inia*), VAL(*eriana*), OESC(*o*), and VTO. *Sucidava* is not among them, although *ND* lists it as one of the legionary headquarters[120]. This could be another argument that *Sucidava* could be a later addition on the Dacian list.

If we accept that the *Utum* and *Valeriana* stamps are datable in the last decade of the Constantine's reign, we must also admit an initial dispatch of five legionary detachments (like in case of *XIII Gemina*) concentrated on a relatively limited area, between *Varinia* and *Utum*. *Variniana* is recorded in *NDOr* XLII 31, but apparently it must read *Valeriana*, *VAL*(*eriana*), as the bricks indicate, which implies that the fort garrison was maintained; at a later date, the detachment from *Variana* (PRLVMVAR) could have been dispatched to *Sucidava* and replaced with a *cuneus equitum*[121]. The nearby *Utum* seems also to have been deprived of its initial legionary detachment (PRLVMVTO) most likely dispatched to *Cebrum*, as the western most point of military control on the limes[122] under the competence of the *Oescus* center[123].

The picture of the deployment of the *V Macedonica* on the river frontier was thus substantially changed after 328 due to the installation of new legionary headquarters at *Sucidava* and *Cebrum* instead of *Varinia* and *Utum* where *cunei equitum* have replaced the legionary detachments.

Due to its position next to the boundary with *Moesia Secunda* and the shortness of the limes sector between *Oescus* and *Securisca* (*Moesia Secunda*), the *V Macedonica* had apparently no *pars inferior* of its *ripa*, recorded either in *ND* or epigraphically attested.

The restoration of the section of the legion V

[110] Tudor 1960, 342, no. 23, 344 no. 30; Sarnowski 1985, 119; Dietz 1993, 315; Vasić 1997, 152, 154, 156, 158; IGLR no. 284.

[111] Tudor 1960, 342, no. 24; IGLR 343, no. 37; Sarnowski 1985, 119; Dietz 1993, 316; Vasić 1997, 152; 158.

[112] Tudor 1960, 343, no. 26; Sarnowski 1985, 119; Dietz 1993, 315; Vasić 1997, 158.

[113] Tudor 1960, 343, no. 28; Sarnowski 1985, 119; Dietz 1993, 316; Vasić 1997, 157.

[114] IGLR no. 286; Sarnowski 1985, 119; Dietz 1993, 315.

[115] Sarnowski 1985, 119; Dietz 1993, 316; Vasić 1997, 157.

[116] Tudor 1960, 342, no. 25; Sarnowski 1985, 119; Dietz 1993, 315-316; Vasić 1997, 157.

[117] Tudor 1960, 337, no. 7; IGLR no. 285.

[118] Sarnowski 1985, 113-127.

[119] Dietz 1993, 284-290, 293, 301, 315-316.

[120] *Valeriana* and *Varinia*, two neighboring forts pose some problems. *Varina* in *ND* (XLII 18) is *Varianis*>*Variana* in *It. Ant*. (220. 3), apparently the correct name repeated as Βαριάνα by Proc. *De Aedif*. IV 6. 4. The reading of the same place is not so convincing in *ND* XLII 31 where the wording VARINIANA is puzzling; it looks a hybrid form between *Valeriana* (*It. Ant*. 220. 4),VAL(*eriana*) on stamped tiles, on one hand, and *Varina* (ND)>*Variana* (*It. Ant* 220. 3). *ND* displays a corrupted form, *Variniana*, which might be a corruption from VA(LE)RINIANA implying an addable particle LE and an eliminable particle NI which would result in VALERIANA in accordance with *It. Ant*. and the epigraphic evidence.

[121] *NDOr.* XLII 18.

[122] *NDOr.* XLII 32.

[123] A tile stamped PRLVMOES was found at *Bononia*, in the territory of the *XIII Gemina*. It is certainly an import rather than a presence of a detachment from *Oescus* (Tudor 1960, 345, no. 370). For the stamped building material of the *V Macedonica* west of *Ratiaria* see Vasić 1997, 158.

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Macedonica in *ND* proposed by K. Dietz[124] seems reasonable, although it appears scholarly fabricated:

Praefectus legionis quintae Macedonicae [*cohortiu<m> partis superioris*] *Varinia(na)*;

Praefectus legionis quintae Macedonicae [*cohortiu<m> partis superioris*] *Cebro;*

Praefectus legionis quintae Macedonicae [*cohortiu<m> partis superioris*] *Oesco;*

Praefectus legionis quintae Macedonicae [*cohortiu<m> partis superioris(?)*] *Sucidava.*

2. Cohortes

The oldest evidence of pre-Constantinian (Aurelianic-Tetrarchic) units in the configuration given by *ND* is apparently suggested by two *cohortes* listed after the legions. *Cohortes* are commonly pre-Tetrarchic or Tetrarchic in date[125] and there is clear evidence of preservation of older structures in the new organization in the Eastern provinces[126]. Each such regiment was commanded by a tribune, a pattern revealed in several other cases in *ND* and papyrological sources.

One of the infantry regiments in *Dacia Ripensis* billeted at *Siosta* is labeled *cohors secundorum reducum* (*NDOr*. XLII 40). The wording *secundi reduces* is a Genitive Plural. *Redux*, and *reditus*, *reversus* were important notions in the social life of the Roman society. *Fortuna Redux* was an important deity in the Roman religion for those who implored safe return[127]. *Redux* means 'She Who Brings Back'or 'Returns'. The goddess oversaw a return primarily from war, as well as from a long or hazardous journey. The stance is stressed by the adjective in plural *secundi* which here takes the meaning of a favorable enterprise, in a context of *res secundae* attributively (= 'success', 'prosperity', '*res prosperae*'), therefore '*the cohors of those who have returned auspiciously and safely*' from e.g. a mission/assignment/war. The epithet is singular in the list of cohorts of Early Empire. There is no question of a *cohors Secunda redux*, in which case the wording would have been *tribunus cohortis Secundae Reducis*. In fact, the *cohors* shows no number and is known only through this euphemistic expression. Some late 3rd or early 4th century events in the Empire could have triggered the dispatch of the regiment from *Dacia Ripensis* followed by its successful return in the same province.

What can be said on the provenance of this regiment? An altar is dedicated *Iovi cohortali pro centurionibus omnium ordinum* at *Drobeta* by Lupus, *tribunus*[128]. The inscription written on the opposite face of a 2nd century altar is commonly considered as Tetrarchic if not Aurelianic in date[129]. *Iovius cohortalis* is also known at Rgotina, in the mining district of Bor and Majdanpek, but particularly in the Dalmatian environment, as demonstrated by M. Mirković[130]. There are two candidates for a milliary cohort at *Drobeta*. The first is *cohors I sagittariorum milliaria* still billeted in *Drobeta* by mid-3rd century (Philippus Arabs)[131]; the second is *Cohors III Delmatarum milliaria equitata* recorded at Mehadia in 257-260 with the honorific title *Valleriana Galliena*[132]. Many of the regiments could have sur-

[124] Dietz 1993, 315.

[125] Roxan 1976, 59-76.

[126] Várady 1961, 378; Jones 1964, 56; Clemente 1968, 146-147. See also the separate subdivisions called *laterculi minores* added to each provincial section of the Eastern army where the old type of *cohortes* and *alae* were preserved in great number, probably in their pre-and Tetrarchic configuration and size (van Berchem 1952, 18-19; Seston 1955, 788; Várady 1961, 376, note 162). That the structure of the auxiliary troops was not altered by the Tetrarchic regime is clearly stated by Eumenius (18. 4): *nam quid ego alarum et cohortium castra per censeam, toto Rheni et Histri et Eufratae limitere stituta*. As many as seventy auxiliary *alae* and *cohortes* from pre-Severan times certainly or probably retained their name and provincial garrison in the late Roman army. It seems that in some cases *cohortes equitatae* (part-mounted units) had been changed into full cavalry *alae*, presumably to increase the army's mobility and capacity for rapid and varied response (Roxan 1976, 61; Campbell 2008, 113). A law of 325 (*CTh.* VII 20. 4) speaks of *alares* and *cohortales* (Várady 1961, 376, note 162; Jones 1964, 97; Seston 1955, 786) a hint that *alae* and *cohortes* were still functioning as part of the structures of the Roman army. On their status: van Berchem 1952, 90-93; Jones 1964, 57. In the *Brigetio* table (*Tabula Brigetione*) (AE 1937, 232; van Berchem 1952, 75-83; cf. Seston 1937, 477-486) mention is also made of *alares* and *cohortales* (Seston 1955, 788). The size of a *cohors*: Mommsen 1889, 262-263; Grosse 1920, 45, 53, 54; Jones 1964, 679-680; Clemente 1968, 146; Luttwak 1978, 178 (500 men).

[127] Kajanto 1981, 1502-588; De Caprariis 1984, 131-153; Arya 2002; Perfect 2012, 36-54. *Fortuna Redux*, the Goddess of luck (*Fortuna*) had among other charges the mission of bringing people back home safely, mainly from wars. She was invoked on an altar dedicated by the Senate in 19 BCE for the safe return of the Emperor Augustus.The Goddess bore also the name *Fortuna Restitutrix* ('She Who Restores') = *Redux*, for her attributes were the health and safety of the soldiers. She was worshipped mainly in the military environment.

[128] IDR II no. 21=IGLR no. 402.

[129] Daicoviciu 1944, 292-293; Popescu 1976, 354.

[130] IMS III/2, no. 126, 127; IV, no. 22.

[131] ISM II no. 106; 107; Benea 1976, 77-84; Petolescu 2002, 120-121.

[132] ISM III, no. 77; Petolescu 2002, 102-103, no. 35. Cf. also IMS III/2, no. 5. *IOM Cohortalis*, especially when bearing the epithet *Paternus*, refers obviously to the supreme deity as protector of a cohort or cohorts, but also a reference to the origin of the individuals in the mili-

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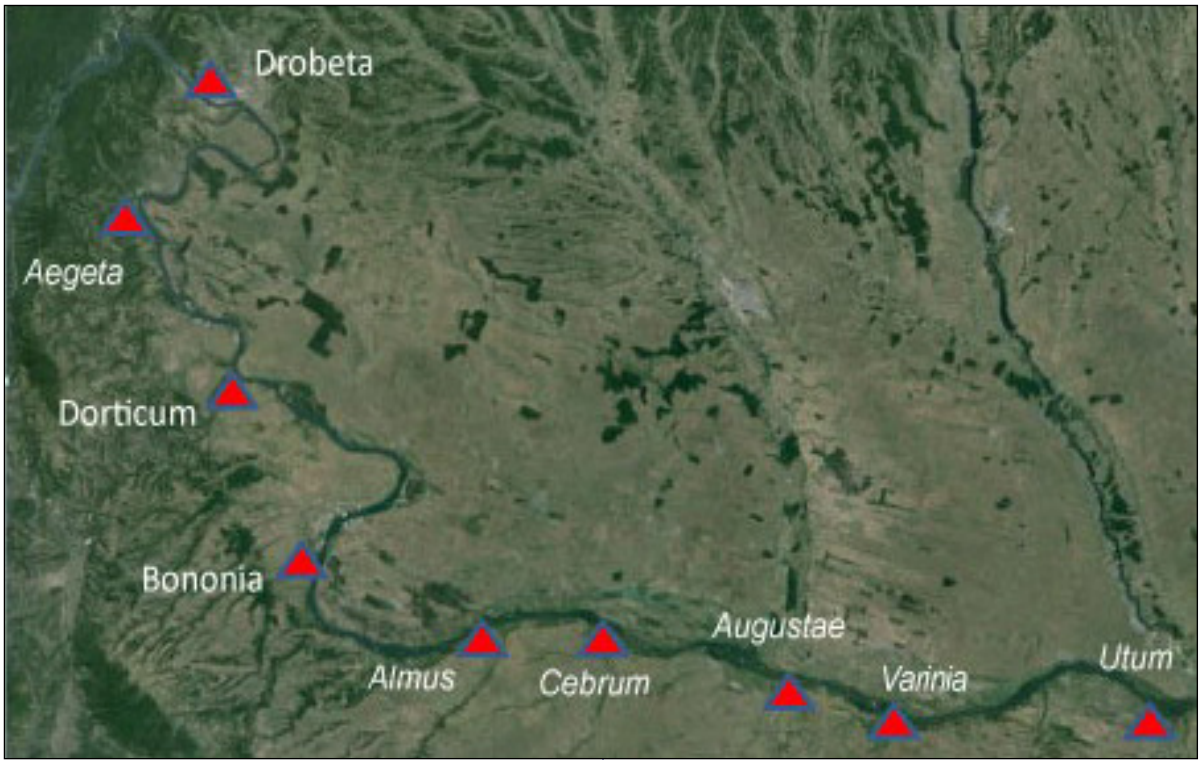

Fig. 6 – *Cunei equitum* on the river frontier of *Dacia Ripensis* according to *Notitia Dignitatum*

vived the abandonment of Dacia. 'Lupus' rank of *tribunus* fits the command of a one thousand men cohort, regardless its epithet or ethnonym.

The second *cohors* in the section is *cohors nova*. All the manuscripts give *nova* ('the new one') and not *nona* ('the ninth'). If not a recent setting, the regiment at *Sostica* could have been a survival of one of the *cohortes novae* in Upper Moesia: *I Aurelia Nova Dardanorum* (Naissus?)[133], or *II Aurelia Dardanorum milliaria equitata* stationed at Ravna (*Timacum Minus*)[134] or even a recently created regiment in mid-3rd century.

Cohors Secundorum reducum and *cohors nova* may presumably be decedents of the large sized *cohortes milliariae* of the 3rd century, utterly transformed in Gallienic period when they were deprived of their cavalry strength and later, in Constantinian epoch, when the remaining infantry was split in smaller detachments. At the time of *ND* both cohorts were each no bigger than 300 men in size under the command of a high rank officer who continued to be traditionally called *tribunus*.

3. Cunei equitum

Legionary detachments and the typical Constantinian formations, *cunei equitum*, are rarely associated, a fact emphasizing the high status of *cunei* as operational regiments[135]. The provincial *insignia* in *ND* display only the headquarters of *cunei* which confirms their position of high ranking units liable at any time to be turned into operational regiments (*commitatenses* or *pseudo commitatenses*)[136]. *Dacia Ripensis* shows two exceptional associations *legio-cuneus* in the same headquarters at *Cebrum*, in the territory of the *V Macedonica*, and *Aegeta*, in that of the *XIII Gemina*. It might be not accidentally that two *cunei equitum* where dispatched each to legionary centers, although the

tary. *IOM Cohortalis* is specific in this context more to the Dalmatian environment which would bring the deity closer to the presence of Dalmatian population around *Naissus*/Niš, and Rgotina fortress on the Timok basin (Mirković 1966, 391-394; ISM III/2 no. 126). Suggestion can be made that the Drobeta altar (IGLR no. 402) was set by a *tribunus* of the one thousand-men Dalmatian regiment which seems to have been re-dispatched down south by late 3rd century, rather than an officer *(tribunus)* of the *Sagittarii* unit.

[133] Wagner 1938, 130-131; Dušanić 1976, 237-246; Beneš 1978, 30, no. 79/42; Spaul 2000, 349.

[134] Wagner 1938, 131-132; Dušanić 1976, 237-246; Beneš 1978, 30-31, no. 80/43; Petrović 1986, 514-515; 1997, 122; Spaul 2000, 350-351.

[135] *CTh.* V 4. 1; 17 June 325: *universis tam legionibus quam vexillationibus comitatensibus seu cuneis*; on *cunei equitum* see: Mommsen 1889, 195-279=1910, 206-283 especially 212; Fiebeger 1900, 1756-1757; Grosse 1920, 51-53; van Berchem 1952, 99; Várady 1961, 369-371; Jones 1964, 99; 681-682; Hoffman 1969, 248-250; Scharf 2001, 187-193; Zahariade 2006, 170; for *numerus* and its size: Várady 1961, 369-371.

[136] See the Constantine's decree of 17 June, 325 (*CTh.* VII 20. 4.4); the versatility of the *cunei equitum* is proved also by a passage in Zos. *Hist.* (V 45. 1) in which five *cunei Dalmatarum* were used as operational strength against Alaric in 409 (cf. Várady 1961, 370; Scharf 2001, 187-188).

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reasons, if there was any in particular, remain still uncertain[137].

The *cunei equitum* section shows signs of successive interventions (fig. 6). There are nine *cunei equitum* in total: five *Dalmatarum*, of which two with simple name, two others labeled after place of origin, one after the mother unit, and one bearing the name of its founder, Constantine I (*Constantinianorum*). Three *cunei equitum* bear functional epithets (two *Scutariorum* and one *Stablesianorum*).

Cunei Dalmatarum sprang out directly from the Gallienic-Tetrarchic sizable group of units labeled *Equites Dalmatae*[138](fig. 7).

Two *cunei equitum Scutariorum* garrisoned *Aegeta* (XL 20) and *Cebrum* (XL 15) respectively. *Scutarii* formed a large Imperial bodyguard regiment during Gallienus' and early Diocletian's times[139]. It could have begun splitting and reassigning parts on different sectors of the Danube and Eastern frontiers, a process officially finished presumably under Maximinus Daia, when smaller formations of *equites scutarii* appear for the first time. The dispatch of some cavalry units to the legionary headquarters in *Dacia Ripensis* on the occasion of the presence of the victorious Constantinian army at *Campi Ardienses* in Thrace (316) could have been the result of this redistribution[140].

A *cuneus equitum Stablesianorum* was billeted at *Almus* where a later repair of the fortress is highlighted by the issue of building material stamped ALM(*o*)[141]. Like the *Scutarii*, *Stablesiani* were a sizable Imperial bodyguard strength created by Gallienus and perpetuated by the Tetrarchic regime. They originate from the imperial or provincial guards of *stratores*. There were large independent units of *Stablesiani* still acting on different occasions and frontier sectors. Like *scutarii*, they were reorganized as *cunei equitum* after 311, and especially after 325.

The two cavalry regiments *Dalmatarum Divitensium* from *Dorticum* and *Drobeta* need some additional comments[142]. D. Hoffmann[143] rightly pointed out that the epithet *Divitenses* applied at a later period to some regiments from the palatine and field army has close connection with the *Divitia* garrison. Here, a detachment of *legio II Italica* stationed at *Lauriacum* and the *numerus exploratorum Germanicianorum Divitensium* were dispatched apparently during the second Tetrarchy or in early Constantine's reign; the latter was apparently split in other smaller units[144].

The connection of the *Divitia* center with the *Divitenses* cavalry units from *Dorticum* and *Drobeta* is certainly to be sought indirectly. In late 3rd century a regiment of *equites Dalmatae Divitensium* is recorded in three epitaphs at Turin[145]. Two *exarchi* of the unit, *Aurelius Maximus* and *Aurelius Senecio* are recorded in a pair of inscriptions. They seem to have died most likely in the battle of *Turin* of 312[146]. D. Hoffmann supposed that the officers were dispatched in the area occasioned by the confrontation with Maxentius' forces. However, a squadron of *equites Dalmatae* was billeted during the first or rather second Tetrarchy at *Divitia* (*Germania Inferior*) from where the epithet *Divitenses*[147]. It could have been initially dispatched in Italy where it took part in the battle of *Turin* and was later redeployed on the Danube

[137] The association *legio-cuneus* could be reasonable considered either as a tactical arrangement for each legionary territory (*Cebrum* for *V Macedonica* and *Aegeta* for the *XIII Gemina*) or as a result of later re-deployments.

[138] Hoffmann 1969, 248-249; Scharf 2001, 185-193.

[139] Hoffmann 1969, 292-300; Scharf, 2001, 185.

[140] A *vexillatio secunda* (*I*) *Scutariorum* is recorded on an epitaph set for *Flavius Victorinus,* a veteran of the regiment, at *Odessus* (SGSLIBulg., no. 130). According to the invocation of the deity (*Dis Manibus*) the inscription is datable in Tetrarchic or Constantinian period at the latest. The regiment was billeted most likely in *Odessus* as part of the Licinius army in 316/317, and never returned to its initial headquarters after the battle at *Campi Ardienses*. It could have been later integrated into the Constantinian army and served as a base for the setting of a *cuneus equitum*. Provided that a *vexillatio* had 500 men in size (Jones 1964, 56; Clemente 1968, 146; Luttwak 1978, 177; Williams 1985, 97) two *vexillationes equitum scutariorum* (1,000 men) could have served as a good base for the creation of new six *cunei equitum scutariorum* at the Lower Danube by the amalgamation with other regiments of *equites scutarii* or *numeri scutariorum* (cf. Kalinka 1905, no. 384; AE 1946, 42) and allotted to: *Scythia* (XXXIX 12), *Moesia Secunda* (XL 11, 13, 16), and *Dacia Ripensis* (XLII 15, 20); on the *Scutarii* see: Hoffmann 1969, 292-299.

[141] Tudor 1960, 340, no. 17; IGLR no. 294; Sarnowski 1985, 119.

[142] For *Cunei equitum Dalmatarum* see in particular: Clemente 1968, 150-151; Hoffmann 1969, 248-249; Scharf 2001, 185-193. The sources for *Dorticum* (Vrăv): Ptol. *Geogr.* III 9.4 (Δορτικόν); *Tab. Peut.* VI 4 o; *It. Ant.* 219.1; *NDOr.* XLII 3.14; Procop. *De Aed.* IV 6; Rav. *Geogr.*IV 7. 8; 20; in spite of its strategic importance at the mouth of the Timacum River, the site is hardly known from archaeological view point; it seems to have survived until the end of the 6th century being repaired during Justinian I; Kanitz 1882, 67; Patsch 1905, 1576; TIR L 34, 1968, 55; Gudea 2001, 91.

[143] Hoffmann 1968, 177-179, 258-260.

[144] Caroll-Spielecke 1993, 386-387.

[145] CIL V 7000=ILS 2629, 7001, 7012.

[146] Barnes 1981, 41-42.

[147] Caroll-Spielecke 1992, 387.

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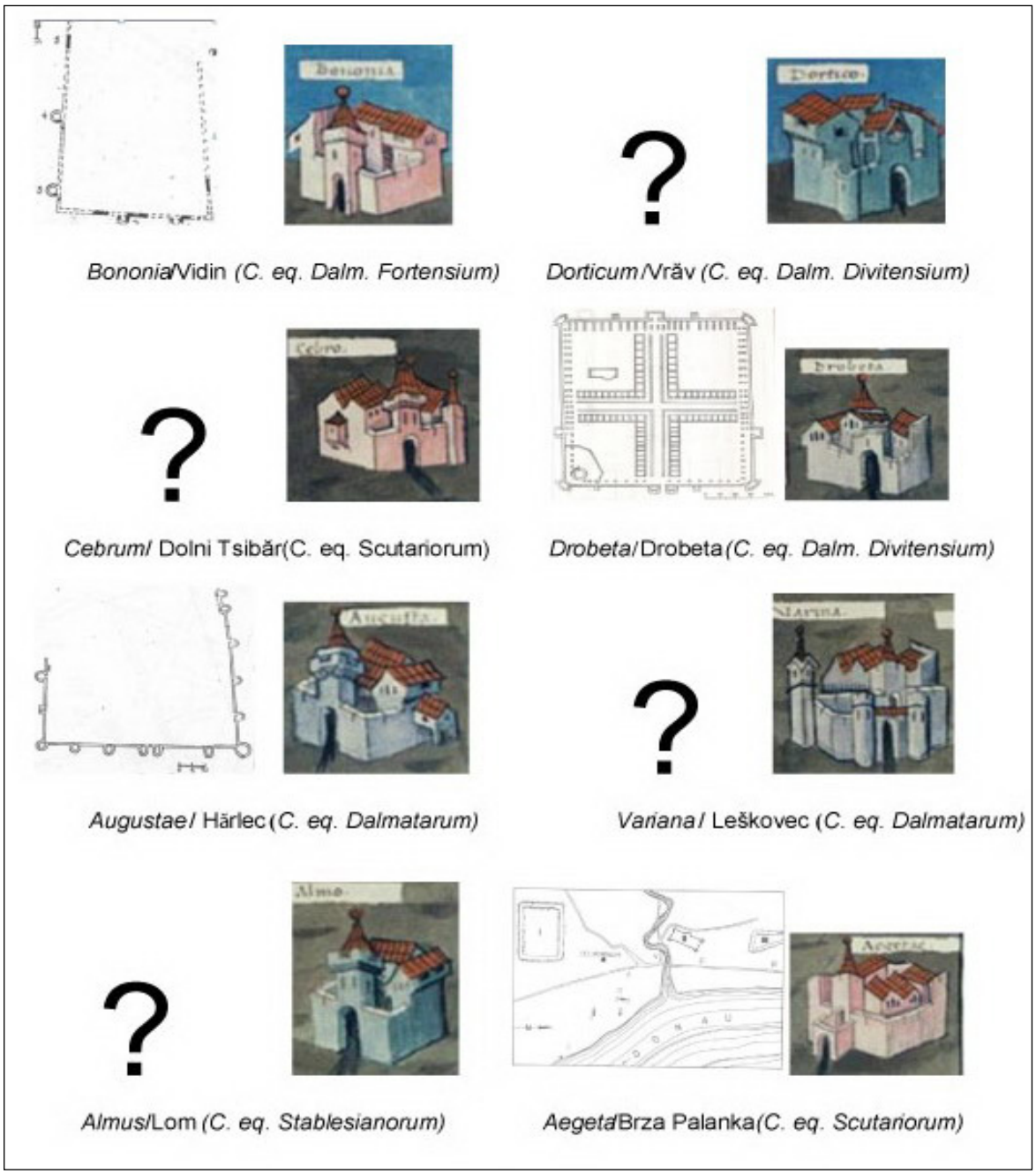
Bononia/Vidin (C. eq. Dalm. Fortensium)
Dorticum/Vrăv (C. eq. Dalm. Divitensium)
Cebrum/ Dolni Tsibăr(C. eq. Scutariorum)
Drobeta/Drobeta (C. eq. Dalm. Divitensium)
Augustae/ Härlec (C. eq. Dalmatarum)
Variana/ Leškovec (C. eq. Dalmatarum)
Almus/Lom (C. eq. Stablesianorum)
Aegeta/Brza Palanka(C. eq. Scutariorum)

Fig. 7 – Forts of the *cunei equitum* in *Dacia Ripensis* and their representation in the mss. of *Notitia Dignitatum*.

as part of the Constantinian army, most likely for the incoming conflict with Licinius[148]. The post-battle tactical arrangement on the Dacian river frontier, now controlled by Constantine, included the splitting of the larger regiment of *equites Dalmatarum Divitenses* in two separate units, identifiable in the two *cunei equitum* from *Drobeta* and *Dorticum*[149], possibly to fill up the gaps left by the troops destroyed during the battle of *Campi Ardienses* in 316.

A marble plate with inscription found at *Serdica*/ Sofia[150] adds some important clue on the presence of *Divitenses* in Dacia. The inscription records a certain *Felix*, *civis Ambianensis*, *asig(nifer) d(e) n(umero) Divitensium* and a veteran settled in or around Serdica. *Numerus Divitensium* from Serdica could be equated with one of the two regiments created from *equites Dalmatarum Divitensium*. It could also be an important piece of evidence on the Constantinian gradual reforms on the Dacian border which began shortly after 316. The creation of a new type of regiments labeled *cunei equitum*[151] preserved, in particular cases, their original name, like that of *Dalmatarum Divitensium*.

Numeri Dalmatarum seems to have been in a sizable number in the areas controlled by Li-

[148] Scharf 2001, 189.

[149] Zahariade 1997, 167-182.

[150] SGSLIBulg., no. 6.

[151] Mommsen 1889, 232.

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cinius until 316[152]. An inscription from Thiatyra (Lydia)[153] mentions Valerius *Iuventinus*, *exarchus* '*in vexillation*(*e*) *eqq*(*uitum*) *Dal*(*matarum*) *comit*(*atensium*) *Ancialitana*'. *Anchialos* was situated on the Thracian coast of the Black Sea in Licinius' controlled-province until 324. The tombstone cannot be closely dated, but it adduces evidence of a stationary regiment detached from the Tetrarchic *comitatus*[154]. The vexillation might have contributed to the building up of the series of *cunei equitum Dalmatarum* after 324.

The modern village of Makreš, ca. 20 km south of the Danube, between Vidin and Arčar, produced three funerary *stelae* of exceptional importance for the organization of the *numeri Dalmatarum* during the Tetrarchic period[155]. Two inscriptions record personnel most likely from the same regiment. One mentions *Atadis*, the son of *Doranus*, in the *centuria* of *Calvinus*, died aged 20. *Romus*, active soldier in the VI *centuria* of the regiment (probably under the same *centuria* of *Calvinus*) set the gravestone for his brother-in-arms. The second refers to *Aurelius Mundus*, *exarchus* in a *numerus Dalmatarum* who died 30, while his wife died 20 and receives a dedicatory gravestone from his son, *Aurelius Myrcianus*. The latter individual mentions also his daughter who died aged 8. The third inscription mentions *Aurelius Maximianus* who was *circitor* probably in the same *numerus*.

At Sisentsi, near Vidin, an inscription mentions *Mucco*, a veteran in *numerus Dalmatarum*, buried in the necropolis of the settlement. It is conceivable that the Sisentsi monument is in direct connection with the same *numerus Dalmatarum* recorded at Mokreš.

If the Mokreš and Sisentsi inscriptions are to be put together in the same context, they could indicate the existence of one or two, at the most, *numeri Dalmatarum* in the pre-Constantinian period acting in the area south of *Bononia*, on the *limes*. They could have very well contributed, to the creation of *cunei equitum Dalmatarum* recorded in *ND* at *Augustae* and *Varinia*.

In the Tetrarchic period and later, *numeri* were usually cavalry regiments and there is little chance to have been infantry in structure. If so, the existence of *centuriae* in the *numeri* as recorded in the first Mokreš inscription makes sense and would suggest that the term of *centuria>centurio* replaced the older term of *decuria>decurio* even in a cavalry unit. *Exarchus*, mentioned in the second inscription was a non-commissioned officer, who commanded six cavalry men organized in a *contubernium*; if so, ten of such *contubernia* formed a *centuria* (=60 men). The sixth *centuria* is recorded in the first inscription that practically means the existence of ten *centuriae*, therefore 600 men in a Tetrarchic *numerus*. In that case, a *numerus* could have been later split in two *cunei equitum* of 300 men each[156].

According to *NDOr.* XL 13, *Cuneus equitum Dalmatarum Fortensium* garrisoned *Bononia*. D. Hoffmann[157] thinks that the regiment was a detachment of the *legio II Traiana Fortis* from which derives the epithet *Fortensium* that fought on Licinius' side[158]. But sizable cavalry strength in a 4th century legion is questionable after the massive Gallienic withdrawal of the horse stock. It would be more conceivable that the regiment was formed from a unit of Dalmatians acting on the battlefield as an auxiliary force of the legion *II Traiana Fortis* and receiving the epithet *Fortensium*. At *Mediolanum*, a *numerus Dalmatarum Fortensium* is recorded in early 4th century[159], together with two non-commissioned officers (*signifer* and *exarchus*) who served in the regiment. Given the epithet *Fortensium*, it may be that the Mediolanum regiment contributed, even if maybe partially, to the setting of the *cuneus Fortensium* from Bononia.

Dacia Ripensis has a tradition in hosting *Dalmatae* regiments, many probably proceeding from the organization of that category of troops in the Licinian army[160].

The two *cunei equitum Dalmatarum* from *Augustae* and *Varinia* should have had the late Tetrarchic

[152] Scharf 2001, 186.

[153] CIL III 405=ILS 2792.

[154] Tomlin in Gwynn 2008, 149.

[155] 1. AE 1938, 97: *D*(*is*) *M*(*anibus*) / *Atadis Dorani* / *filius qui milita*(*vi*)*t* / *n*(*umero*) *D*(*almatarum*) [*ce*]*nturia* / *Calvi*[*ni*] *vixit* / *anno*[*s*] *XX* / *Romus qui mili/ta*(*v*)*it in nume/r*<*o=VM*> *Dalma/t*[*a*]*rum* |*(centuria)* [3]*VI*; 2. AE 1938, 98: *D(is) M(anibus) / Aur(elio) Mund(o) / exarc*(*ho*) *n*(*umero*) *D*(*almatarum*) / *v(ixit) a(nnos) XXX et Au/reliae Surae / v(ixit) a(nnos) XX et Aureli/ae Augustae / v(ixit) a(nnos) VIIII, Aur(elius) / Myrcianus / parentib(u)s / b(ene) m(erenti) p(osuit)*; 3. AE 1938, 99: *D(is) M(anibus) / Aur(eli) Maximi/niani ci(r)cito/ri vix(it) a(nnos) LII / Aur(elius) Maximus / vet(eranus).*

[156] On the basis of the calculations of the space available in a barrack block at *Drobeta* were a *cuneus* was billeted, Zahariade 1997, 172 considers for such a type of cavalry units not more than 290-300 men. For the size of a *cuneus equitum* in general see: Zos. V 45; Várady 1961, 369-371; Clemente 1968, 150-154, both with commentaries on Zosimus' text. The number of 1,200 men offered by Várady 1961, 370-371 seems highly improbable.

[157] Hoffmann 1969, 234-235, 258.

[158] Ritterling 1925, 1484-1490.

[159] CIL V 5823.

[160] Scharf 2001, 186.

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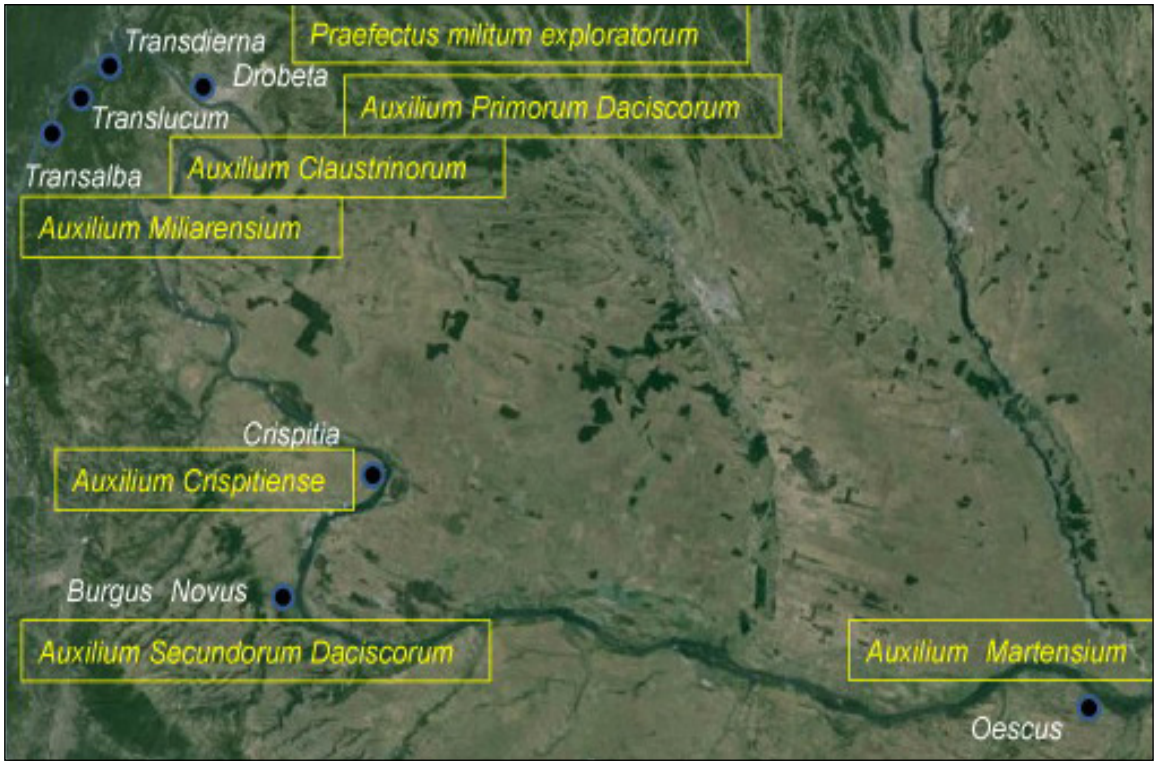

Fig. 8 – *Auxilia* and *milites* on the river frontier of *Dacia Ripensis*.

or rather Licinian old type of *equites Dalmatae* as predecessors turned into the new class of regiments once the Constantinian reforms were implemented[161]. The series of stamped bricks and tiles *VARI DAL* (*Var*[*iniae*] *Dal*[*matae*] and *DALVARI* (*Dal*[*matae*] *Vari*[*niae*]) found at *Sucidava* inaugurate the presence of the *cuneus equitum Dalmatarum* at *Varinia*[162], while the pieces stamped *VARINIA* could mark a late Constantinian or mid-4th century repair of the fort[163]. The insertion of a *cuneus equitum* at Varinia, following the Constantinian reforms, implied the redeployment of the legionary detachment to *Sucidava* where bricks and tiles stamps *LVMVAR* had previously circulated (see above).

The cavalry regiment from *Utum*, *cuneus equitum Constantinianorum* is a typical Constantinian creation. A tile stamp EQ N C=*Eq*(*uites*) *n*(*umeri*) C(*onstantiniani*)[164] found at *Sucidava* indicates the existence of a regiment on the Dacian frontier previous to the commencement of the reforms. A connection with *Utum* is not obligatorily, but the piece suggests the presence of a detachment of the unit at *Sucidava* during the works of reconstruction or an import of building material. However, the regiment of *equites Constantiniani* could have served as a base for the creation of the *cuneus* dispatched to *Utum,* either to replace a former regiment or to fill the gap left by a previously lost unit, e.g. the re-dispatched detachment of the *V Macedonica* (see above). The brick stamps bearing *VTO*, *OTV* (retrograde) would mark a later (mid-4th century) rebuilding of the fortress[165].

Many toponyms recorded on the stamped building material, issued on the occasion of significant rebuilding or repair activities, are confirmed by *ND* and itineraries. Most of the names of the *cunei* headquarters[166] appear on stamps: *Utum* (*VTO*), *Varinia* (*VAR*), *Augustae* (*AVGVSTISFO*), *Cebrum* (*CEBR*)[167], *Almus* (*ALM*), *Bononia* (*BON*)[168], *Drobeta* (*DRVBETA*). Their record indicates above all the importance of this type of cavalry units on the frontier, their interoperability with the field army and their high ranking position in the hierarchy of regiments liable at any time to be assigned to the field army.

[161] Hoffmann 1969, 247.

[162] Tudor 1960, 338, no. 10; IGLR no. 289A; Vasić 1997, 156.

[163] Cf. Sarnowski 1985, 119. The presence of the Constantinian *cuneus Dalmatarum* at *Varinia* seems suggested by three tiles with the retrograde stamp CAD found at *Sucidava* and commonly read C(*uneus*) A(*equitum*) D(*almatarum*) (Tudor 1960, 340 no. 18; IGLR no. 296). As a general observation, the group of *cunei Dalmatarum* in *Dacia Ripensis* remains concentrated to the west of the province and has *Varinia*, as eastern most point.

[164] *NDOr.* XLII 21. Tudor 1960, 340 no. 15; IGLR, no. 288 A; Vasić 1997, 160.

[165] Tudor 1960, 341, no. 19; Sarnowski 1985, 119.

[166] Except *Dorticum* and *Aegeta* whose abbreviations on stamped bricks and tiles have not yet been discovered.

[167] Tudor 1960, 344, no. 32.

[168] Tudor 1960, 345, no. 41; Vasić 1997, 167-168.

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4. Auxiliares

The Constantinian reforms brought changes in number and structure of the auxiliary regiments. From *Raetia* to *Scythia*, the Danube frontier displays three categories of infantry units: *cohortes, auxiliares* and *milites* and, strikingly, only four *alae*, otherwise extant in the Near Eastern provinces and Egypt in great number[169]. *Cohortes* and *alae* are inheritance from the 3rd century and Tetrarchic epoch when these types of units were still in existence (see above). *Scythia*[170] and *Moesia Secunda*[171] have only *milites* as infantry regiments, although they are styled under the title of *auxiliaries*. Besides *auxiliares*, *Moesia Prima* has five units of *milites*[172]; four of them are included under the title *item legiones*, therefore under the direct competence of the legionary headquarters[173] which is a good argument to understand the provenance of the *milites* units from the legionary detachments. However, the commonest tandem in *ND* is represented by the binomial *legio-milites*.

Surnames borne by some of the *auxiliares* and *milites* in *Dacia Ripensis* and *Moesia Prima* refer to their specific assignments (fig. 8). Four regiments of *milites exploratorum* in *Moesia Prima* and one in *Dacia Ripensis* had apparently patrolling missions, acting more or less overtly north of the Danube, in the enemy's territory (Sarmatians) to gather intelligence, as scouts, espionage missions, monitoring activities and making detailed regular reports, offering information on the enemy's terrain and future plans[174].

The tasks of *auxilia* on the *Taliata-Transdierna* sector appear to have been more complex and diversified. This stretch of the Danube course was difficult for navigation, hardly accessible and circulation considerably slowed down in the Cazane gorge. Its control received particular attention. The right bank of the river, overlooked from the east by the high Miroč plateau, shows a significant number of small forts and watch towers[175] (fig. 9).

Three regiments were deployed along this frontier sector. A unit of *milites exploratorum* garrisoned *Transdierna* (XLII 29); it was assigned for patrolling and policing the right bank of the Danube, ca. 12 km in length upstream river until the exit of the Danube from the narrowest course at the Cazane gorge. A specific mission had *Auxilium Miliarensium* which garrisoned *Transalba*, a place to be sought for on the right bank of the Danube across Dubova in the same Cazane area, with patrolling and road maintenance tasks as the adjectival noun, *miliarensium*, shows; it is a direct reference to some *millia passuum* along the road in the Cazane gorge of which the regiment had to take care of. However, its area of competence could have gone much further south and must have been contiguous to the activities of the *milites exploratorum* from *Taliata*, in *Moesia Prima*[176].

An important but different assignment had the third regiment, *Auxilium Claustrinorum*[177]. *Claustrum* means, among others, a confined space, a gateway, a key, but also a channel, narrow passage, gorge, and strait commanding the entrance into a region. That is exactly what happens in the

[169] Várady 1961, 371-373; 377-378 and the comprehensive discussion in note 162 with large reference to the Imperial decree of 325 (*CTh*. VII 20. 4.4); van Berchem 1952, 89-90). It seems that *alae* and *cohortes* were treated as *limitanei* type of regiments, but this status was emphasized only in the 5th and 6th century. On *cohortes*: Hoffmann 1969, 140, 167.

[170] *NDOr.* XXXIX 19-27.

[171] *NDOr.* XL 18-28.

[172] *NDOr.* XLI 33; 34-37.

[173] On this distinct type of troops and their tasks see: Austin, Rankov 2002, especially 42-66; 237-241.

[174] Austin, Rankov 2002, especially 42-66.

[175] Military installations (watch towers and small sized *quadriburgia*) on this segment were identified at Kovej: square *castellum* of 27 x 27 m); Veliko Golubinje: *castellum* of 40 x 31 m; sizable number of coins, big granite blocks, a tile stamp *DRPDIERNA* and another with the stamp [*FAC*(…)] *LATERCVLVS* [*CC*? *F*]*VRIANE* [*M*] *ALEDOR*[*MIE*]*S SI NVN FECERIS* (CIL III 8277[3]; Kanitz 1882, 38; Swoboda 1939, 49-50; TIR L 34, 1968, 42; Popović 1969, 102-103; 1970, 58-59; 1984, 297-300); Malo Golubinje-Četače: *quadriburgium* of 50 x 42 m (Kanitz 1882, 38; Swoboda 1939, 51; Vucković 1965, 191; Popović 1967, 61-62; 1968, 68-69; Vasić, Kondić 1986, 554 fig. 25b; Petrović, Vasić 1996, 18; Gudea 2001, 72-73, no. 13b); stamped tiles *DIERNA DRPDIERNA*; Veliki Strbac: two signaling towers; stamped tile *DRPDIERNA* (Swoboda 1939, 52); Mali Strbac: *quadriburgium* of 48 x 30 m (Kanitz 1882, 33; Swoboda 1939, 55; TIR L 34, 1968, 77); Donji Milanovac-Pecka Bara (Swoboda 1939, 52-53; Garašanin 1951, 193; Kondić 1965, 83; Gudea 2001, 73, no. 13c). Kanitz and Swoboda identified and described more ca. 20 watch and signaling towers along the sector *Taliata* to the mouth of the Jakomir rivulet, on the right bank of the Danube; most of them are round in layout.

[176] *NDOr.* XLI 35. On the Roman road along the Danube between *Taliata*/Donji Milanovac and *Dierna* see: Jordović 1982-1983, 365-370; Petrović 1986, 883-895 (with the entire bibliography). The road was built under Tiberius (33/34) in the vertical wall of the Mountains Miroč and Kučaj along the Gornja Klisura (i.e. southern gorges of the Danube); it was maintained and repaired under Claudius (44) and Domitian (92, 94), and thoroughly restored and extended to the east under Trajan (101); then, the segment (Donja Klisura), ca. 700 m upstream of Balon Vrbica, along the Cazane area until Hajducka Vodenica and *Tabula Traiana* was built in the mountainous rocky wall. The building of the road, especially in the Cazane area, made safer the navigation and enabled the towing of the ships upstream river. The road was apparently used also in later Roman period.

[177] *NDOr.* XLII 27.

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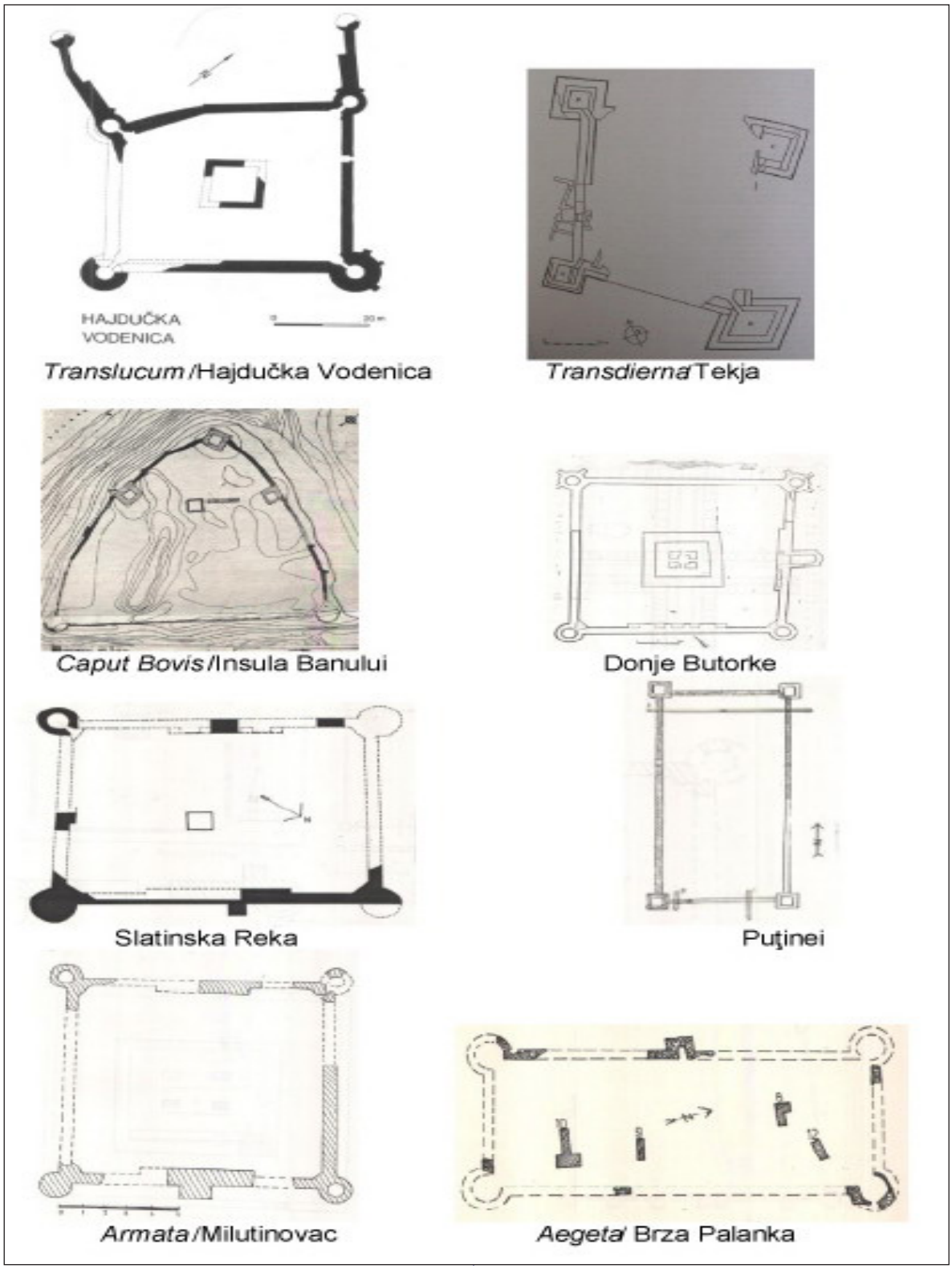

Fig. 9 – *Auxilium*/*milites* forts type in *Dacia Ripensis* during *Notitia Dignitatum.*

Danube corridor at Cazane (fig. 10). *Auxilium Claustrinorum* can be easily translated as '*auxilium* of the straits'; it garrisoned *Translucum* with the mission to patrol, survey, and control ins and outs, probably also by way of boats, of this particular narrow, ca. 9 km in length, dangerous Danube tract[178]. In fact, the *auxilia* from *Transalba* (*miliarensium*) and *Translucum* (*claustrinorum*) closely situated to one another on the right bank of the Danube seem to have had strict but adjoined tasks in checking out this specific river section.

Two *auxilia* at *Drobeta*[179] and *Burgus Novus*[180] respectively, are recorded as *primi* and *secundi*

[178] Zahariade 1996, 249-51.

[179] *NDOr.* XLII 24.

[180] *NDOr.* XLII 28.

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Fig. 10 – The Cazane Gorge controlled by *auxilium Claustrinorum* and *auxilium Exploratorum*.

Dacisci. They are not the only ones expressing this apparent ethnical-territorial term. A regiment called *milites Dacisci* is recorded at *Mediolana* in *Moesia Secunda*[181]. The term *Dacisci* refer rather to units recruited in *Dacia Ripensis*, making a clear difference from the *Dacorum* auxiliary units once recruited among the native Dacians in Trajan's Dacia. The regiment in *Moesia Secunda* seems to have been purposely created and dispatched to fill the gap of a missing unit at *Mediolana*. If *primi* and *secundi* in *Dacia Ripensis* leave the impression of being Constantinian, the Moesian regiment looks presumably post-Constantinian (Constantius II?) in date.

Auxilium Crispitiense[182] appears as part of an old style cohort billeted at *Crispitia* in the Aurelianic or Tetrarchic epoch turned into an *auxilium* which recalls the epithet of its traditional garrison.

Auxilium Mariensium, at Oescus[183], shows clear signs of corruption in terms. Seeck[184] had already proposed, on good ground, *Martensium*. If so, the regiment must have had a connection with *legio I Martia*, or the comitatensian *legio Martenses* derived from the mother legion, *IV Martia*[185] which fought on Constantine's side and of which a detachment could have been drafted and established on the Danube[186].

[181] *NDOr.* XL 21.

[182] *NDOr.* XLII 25.

[183] *NDOr.* XLII 26.

[184] Seeck 1876, 96, note 5.

[185] Ritterling 1925, 1418-9; Hoffman 1969, 175.

[186] A soldier, *Valerius Vitalis*, labels himself as belonging to 'the detachment of *Martenses* of the Gallic army' (CIL

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5. Classis

The last two units under scrutiny in the Dacian section are the river fleet squadrons. *ND* shows intervention in the naval domain on the Danube consisting in a thorough transformation of two large 1st -3rd century traditional river fleets: *classis Flavia Moesica*, once with competence from *Viminacium* to the Black Sea and *classis Flavia Pannonica* which covered basically the mid Danubian river frontier. Both seem to have undergone drastic changes in structure and deployment in early 4th century[187].

Dacia Ripensis displays two river fleets concentrated in two bases (fig. 11). *Classis Ratiarensis*, billeted at Ratiaria, the legionary headquarters of the *XIII Gemina*, was formed probably of the western units of *classis Flavia Moesica* (XLII 43)[188]. It covered the up and downstream surroundings of the legionary center, presumably until *Aegeta* to the north-west. As *Oescus* does not show any sign of a river fleet, one could suppose that the *Ratiaria* fleet extended its control along the entire segment to the east. *Curisca*/ Kurvingrad, *Bononia*/Vidin, *Ad Malum*/Košava-Cetače were identified as naval stations (*stationes*) upstream *Ratiaria* in an environment characterized by long and sizable islands, canals with protruding water courses into the river banks[189].

The Dacian section of *classis Histrica* was based at *Aegeta*[190]. The fleet seems sizable in number for its competence stretched to middle Danube, as several headquarters upstream *Aegeta*, until *Vindobona*[191] appears indicated in *ND*. The location of the detachments suggests a combination of the former western squadrons from *classis Flavia Moesica* with eastern units from *classis Flavia Pannonica*[192].

An increased stress seems to have been put on separate squadrons at the middle Danube allotted each to legionary centers[193]. As some recent research show a key military and civil center, also an important naval base, was *Aquae*[194] although, surprisingly, the place is not recorded in *Notitia*.

Some conclusions

In assessing the forging of a second half of the 3rd century new river frontier on the Danube between Porecka River to the West and Vit River to the East, a sector once covered by Trajan's Dacia, some decisive factors must be taken into account.

The area became of strategic importance for the Balkan provinces once the Gothic invasions struck south of the Danube in mid-3rd century. The debacle described by historical sources[195] found these territories almost defenseless as a result of their former transformation into a preponderantly civilian district for ca. 170 years with few, if at all, military structures after 106. They had to be imperatively reinforced and recovered from a chaotic and menacing situation.

The 2nd-3rd century Trajanic Dacia's defensive system, a true stronghold amidst hostile populations, had been solid enough to withstand mid-3rd century Carpic invasions; it diverted the Gothic forays down south and displayed apparently no signs of weakness and circumstances to motivate a military and administrative abandonment. However, the fast degradation of the situation south of the river in the sixties of the 3rd century required drastic solutions north of it. The solution was that instead of jeopardizing and isolating considerable military strength north of the Danube, the withdrawal of the army and administrative apparatus and its redeployment on the river line and in hinterland remained a preferable strategic measure with great impact on the future configuration of the area.

Solid and adequate recovery measures perpetrated with significant economic and military efforts were taken during the Gallienic administration[196]. Logistic interventions took place at some south Danubian installations: *Oescus II*, *Novae II*, *Augustae*, *Valeriana*, *Sucidava* in the 60s of the 3rd century. From this viewpoint, Gallienus' military activity and the decisive Claudius II' victory

VIII 16551); the unit sent an important draft in northern Africa in 297/298 which is attributed by Hofmann 1969, 175, note VI, 461 to the wars of Maximianus. It is difficult to know in what circumstances a legionary detachment, either from *I Martia*, garrisoned at Bethoro, in Arabia (*NDOr.* XXXVII 32), or from *comitatensian* legion *Martenses* (cf. *NDOcc*. VII5=40; *NDOcc*. V 115=265=VII 91) arrived and garrisoned in *Dacia Ripensis* and when the transformation into a frontier *auxilium* took place.

[187] Bounegru, Zahariade 1996, 19-22.

[188] Mitova-Džonova 1986, 507-508.

[189] Mitova-Džonova 1986, 508-509.

[190] *NDOr.* XLII 42.

[191] *NDOcc.* XLI 38; XXXII 52; XXXIII 58; XXXIV 28.

[192] Bounegru, Zahariade 1996, 25.

[193] van Berchem 1952, 95, note 3; Bounegru, Zahariade 1996, 25.

[194] Jovanović 1996, 264.

[195] Eutrop. *Brev*. IX 15. 1: '[…] *vastato omni Illyrico et Moesia* […]'; Aur. Vict. *De Caes*. 33. 3: '[…] *Thraciam Goth ilibere progressi, Macedonas Achaeosque et Asiae finitima occuparent* […]'; HA, *v. Aurel*. 39. 7: '[…] *cum vastatum Illyricum* […]'.

[196] See recently Benea 2012, 205-208.

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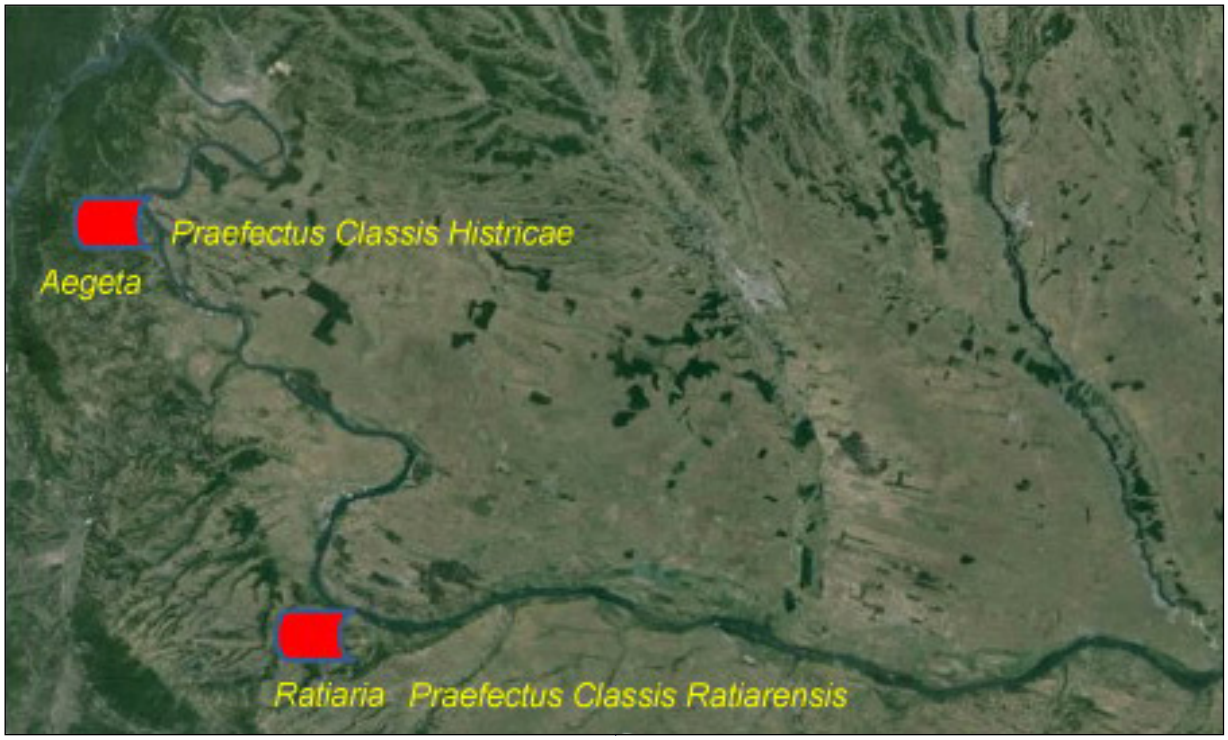

Fig. 11 – The Danube fleet in *Dacia Ripensis* at the time of *Notita Dignitatum*.

against the Goths at *Naissus* (269), were of exceptional importance.

Aurelian is in fact the official author of the abandonment of Trajan's Dacia[197] in parallel with the creation of the new juridical-administrative districts: *Dacia Ripensis* and *Dacia Mediterranea*. As a new province, *Dacia Ripensis* was formed of the western territories of *Moesia Inferior* and eastern half of *Moesia Superior*. Significant constructive interventions at the installations along the river are detectable with great difficulty for the Aurelianic period (271-275). Three bridge-heads at *Dierna*, *Drobeta*, and *Sucidava* were apparently maintained, as well as a military and policing control on some distance north of the river.

The Aurelianic army south of the Danube is strongly shadowed by later massive use of Dacian regiments by the Tetrarchic regime on different fronts (see above). The late 3rd century troop movements literarily depleted the river frontier of military strength, but left no significant epigraphic trace for further assessments. During the wars with Constantine I, Licinius contributed to the voiding of the defense structures of more troops.

One important point must be made here. All these successive interventions in the initial scheme would not have been possible without the existence of north Danubian territories of former Trajan's Dacia as a buffer zone which, if not (re)occupied by ground forces, was nonetheless under the Empire's diplomatic control and influence[198].

The Constantinian military reorganization in *Dacia Ripensis* (ca. 316-ca. 330), as part of the generalized reforms in the Empire, reset the entire picture of the defensive system of the province. Except two cohorts and the two legions, the army of *Dacia Ripensis* looked completely different from the Aurelianic/Tetrarchic period. The reorganization implied the creation of new types of infantry and cavalry regiments, on spot reshuffling of older auxiliary regiments, redeployment of new ones brought from other fronts, more specific missions and tasks on the frontier and beyond assigned to specialized small units. Later interventions into the Constantinian scheme are also difficult to be tracked down[199], although the final revision of the Dacian section in *Notitia Dignitatum* (fig. 12) belongs adamantly to the Constantinian epoch.

[197] There is a considerable literature on the subject of abandonment of Dacia of which we mention only some: Iliescu 1970, 597-600; 1971, 425-42; 1972, 149-60; Bodor 1973, 29-40; Vulpe 1973, 41-51; Ruscu 1998, 235-44; 2000, 265-85; Watson 2004, 55; 156.

[198] The Constantinian reoccupation of southern Trajan's Dacia: Tudor 1973, 149-61; Chrysos 1973, 52-64; Zawadski 1973, 65-8; Tudor 1978[4], 415-55.

[199] Gudea 2009, 85-103.

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Fig. 12 – The *Dacia Ripensis* section of the *Notitia Dignitatum (Oxoniensis Canonicianus Misc., 378).*

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NOTE / NOTES

NOTĂ ASUPRA UNUI FRAGMENT DE CRANIU UMAN DESCOPERIT ÎN CETATEA HALMYRIS (MURIGHIOL, JUD. TULCEA)*

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Key-words: human cranial fragments, anthropological analysis, Halmyris, Murighiol.

Abstract: This note refers to the study of few human cranial fragments discovered in the levelling clay near a column base, re-used during the reconstruction of the fortress from Halmyris that took place at the half of the 6th century AD. The fragmentary calotte had been reconstructed as much as possible. Given that the thickness of the bone is rather big, we have assumed that it probably had belonged to a male individual. Considering the appearance and obbliteration degree of the lambdoid suture, the age of the individual should be of 65-74 years, in the first half of the interval, for the respective sex.

Cuvinte-cheie: fragmente craniene umane, analiză antropologică, Halmyris, Murighiol.

Rezumat: Această notă se referă la studiul câtorva fragmente craniene umane descoperite în lutul de nivelare de lângă baza unei coloane, refolosită în timpul recontrucţiei cetăţii de la Halmyris care a avut loc la jumătatea secolului al VI-lea p.Chr. Calota fragmentară a fost reconstituită, atât cât a fost posibil. Dat fiind faptul că grosimea osului este destul de mare, am presupus că acesta a aparţinut probabil unui individ de sex masculin. Având în vedere aspectul şi gradul de obliterare a suturii lambdoide, vârsta individului respectiv era de 65-74 de ani pentru sexul la care ne referim, fiind vorba, de începutul intervalului pentru sexul la care ne referim.

Cercetările din zona A, amplasată în spatele porţii de nord, a fortificaţiei de la Halmyris, efectuate în anul 2009, au avut ca obiectiv identificarea elementelor arhitectonice din arealul dintre *basilica episcopalis* şi Thermae 1. Suprafaţa cercetată din □ 6 A 12-14; □ 6 C, 5-8; □ 7A 1-5 a dus la identificarea unui complex economic construit în a doua jumătate a secolului al VI-lea, aşa cum indică două monede din timpul domniei lui Iustin II, între 578-581 şi ceramica specifică acestei perioade. Peretele de vest al clădirii nr. 2, care desparte un zid de blocare a accesului spre fostul traseu al *decumanus maximus* (scos din funcţiune încă de la sfârşitul secolului al IV-lea), construit din piatră de şist legată cu pământ, suprapune în □ *6 C 5 a-d* un nivel constructiv databil foarte probabil la sfârşitul secolului al V-lea, în orice caz, în a doua sa jumătate. Acest nivel conţine, de altfel, un strat de ceramică sfărâmată şi pietriş, ceea ce indică o amenajare coerentă efectuată înainte de construcţia zidului menţionat. Cu acest prilej, lângă o bază de coloană, reutilizată în timpul reconstrucţiei de la jumătatea secolului al VI-lea, în lutul de nivelare, au fost descoperite câteva fragmente de piese din bronz şi porţiuni de oase, între ultimele remarcându-se cele provenind de la un craniu uman*. Acesta este analizat antropologic în următoarele rânduri.

Descriere antropologică

A fost descoperită o porţiune de calotă cranianã umană fragmentară, din care diferitele porţiuni osoase se aflau într-o stare foarte bună de conservare, nefiind deci friabile. În urma reconstituirii acesteia, a rezultat că este vorba despre o porţiune relativ mare, provenind din parietalul drept, fără zona suturii sagitale şi un fragment de occipital[1] (Fig. 1). Parietalul amintit se „articulează” cu occi-

* Informaţiile exacte privind aspectele arheologice ale descoperirii, ca şi materialul osteologic, ne-au fost oferite cu amabilitate de către arheologul Mihail Zahariade, căruia îi mulţumim şi pe această cale.

[1] Ifrim (coord.) 1983, 15; Krogman 1962, 78-83.

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Fig. 1 – Porţiune de craniu după reconstituire.

pitalul, în *pars intermedia* a suturii lambdoide (dar prezintă şi porţiunea suturii squamosa). În zona amintită (*pars intermedia*) se observă că sutura are marginile mai slab delimitate şi parţial fuzionate între cele două oase. Restul suturii este deschis, atât exocranian, cât şi endocranian.

Pe partea endocraniană a parietalului se observă impresiunile puternice ale arterelor meningee (*sulci arteriosi*). Occipitalul este neted. El nu prezintă un grad de bombare avansat, fiind mai degrabă aplatizat. Menţionăm că osul este destul de gros în secţiune, ceea ce ne-ar permite să presupunem că craniul la care ne referim ar fi aparţinut unui bărbat. Vârsta acestuia, după cum indică gradul de obliterare a suturii lambdoide, pe *pars intermedia*, după cum a fost stabilită de către diverşi autori, este de 65-74 ani pentru sexul la care ne referim[2], fiind vorba, desigur, despre secvenţa de început a intervalului respectiv, datorită faptului că stadiul de obliterare a suturii este 1, după Martin[3]. Trebuie însă să menţionăm şi faptul că această diagnoză de sex şi vârstă este relativă şi are caracter mai mult orientativ, deoarece sexul stabilit doar prin aprecierea grosimii osului nu are relevanţă deosebită, ca şi vârsta determinată doar pe baza suturilor. După cum este cunoscut, sexul unui schelet se stabileşte folosind relieful cranian şi oasele coxale, iar pentru vârstă se utilizează cel mai frecvent gradul de abraziune dentară şi faciesul simfizei pubiene.

[2] Piontek 1996, 151, ris. 142.

[3] Martin 1928.

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RECENZII / REVIEW

ASPECTS OF ARCHAIC MEDICINE: HUMAN AND ANIMAL TREPHINATION ON THE TERRITORY OF ROMANIA

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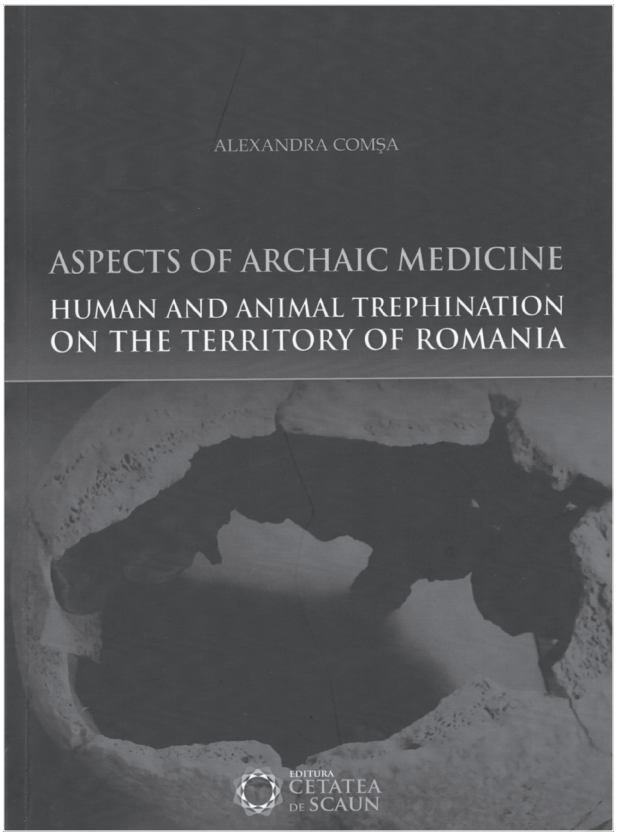

Fig. 1 – Cover of the volume.

The topic of this volume (fig. 1), especially published in the English language for its importance, represents a major concern of several domains, like: archaeology, ethnology, anthropology, palaeopathology, human and veterinary medicine, history of religions, psychology etc. Given the complexity of this theme, very few scientists have ventured to study it in detail. In fact, for the entire South-Eastern Europe, this volume is a first attempt, for the simple fact that this is the only monographic approach, which refers to the "trepanation", a surgery that was applied both to the humans and animals. If, for the latter ones the intervention was undertaken just in order to rescue the life of an animal that was valuable for his master, in the case of the people it was performed for different reasons: **medical**, for removing the discomfort, or complications resulted after the so-called

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impressive cranial fractures as, due to blows, bone splinters migrated inside the cranial vault and attached themselves to its inner part, resulting in dizziness, confusions, intense headaches etc.; ritual, or **magico-religious,** for the sampling of bone roundels that were utilised for making amulets, which were usually suspended at the neck, being used as protection against the malevolent forces, for taking over the qualities of the deceased from which the respective fragment of bone was cut, or even for enhancing the longevity of the people who used them.

The volume begins with the **Introduction** of the author (p. 13-17), who brings arguments to the most important opinions that she has expressed in the book. It follows the chapter about **General Aspects Regarding Trephination** (p. 18-24), which briefly present the first scientific efforts appeared in this kind of studies even beginning with the 19th century, but also the differences regarding the practice of this surgery between the warfare and non-warfare times.

Further on, there are described the **Ancient Writings about Trephination** (p. 25-27), insisting upon the aspects of the "*Homeric Medicine*", "*Hippocrates Collection"* and "*The Arab Doctors*". The next chapter, **Linguistic Aspects connected with the Trephination** (p. 28-29) refers to some of the linguistic origin of the terms employed for the mentioned practice, but also for the instruments used for making the intervention.

History of Research (p. 30-35) shows the persistent concern for such studies, existing even since ancient times, more precisely even beginning with the antiquity and until our days, on international scale. It also contains a subchapter regarding the evolution of the Romanian anthropology and the mode of approaching this topic. Afterwards, there are presented the methods used for making a trephination (p. 36-59), but also some factors that influence the manner of performing this intervention, like: direction of the blow, position of the patient, as well as the cause of the trephination, namely the type of object that inflicted the trauma, existing an obvious difference between the blunt an cutting objects. Then, there are rendered the "steps" of the surgery, the post-surgical recovery, the trephination types, its purpose when it is done upon living or dead subjects, the moment of the intervention, the election zones for the operation, the different shapes of the cut area. There are also described the natural substances used for dressing the wound, followed by the so-called "obturators". These latter ones were protections means for the head, used after such an intervention that required the removal of a large cranial fragments and which, in the case of a new trauma could endanger the brain, when missing such a protection. Afterwards, the author refers to the sex of the trepanned individuals, which was predominantly the male. This fact could not be surprising, given that these subjects were involved in the warfare activities. There are also rendered aspects regarding the consequences of this surgery which, despite the rudimentary conditions and instruments, had seldom resulted in the dead of the patients. This fact has been documented by the presence of healing traces that were frequently identified on the cranial bone, which delimited the trepanation. There are also presented the **Modern Techniques Involved in the Study of Trephination** (p. 60-63), then the **Trephination Implements** (p. 64-76) used, as well as their evolution from a simple flint blade (silex) and up to elaborate metal utensils, with a symbolic decoration.

It follows a synthesis of the **Trephinations in Ancient Times** in different regions of the world (p. 91-102) and afterwards a very important chapter, regarding the interventions on human beings discovered on the territory of Romania and published even beginning with the first decades of the 20th century **(Human Archaic Trephination in Romania**; p. 103-169). This latter sequence has also included the trauma on the skulls, but also the possible surgeries on the crania of people from different periods, which were not analyzed by anthropologists, but mentioned as such by the specialists who excavated them. The author has considered that it's worth making such a distinction, as the conclusion of the archaeologists might be erroneous in some of the cases. Referring to the historical periods that provided individuals with trephinations, it was mentioned that they were present in almost all of them, beginning with the Neolithic and reaching up to the Middle Ages. Yet, the weight of such interventions varied in time, according to different factors. The largest number of cases was found in the Bronze Age. This situation resembles with the one identified in Italy, where the same historical period provided the most important number of such surgeries. When the cranial index was considered, it could be observed that, in Romania, the most frequent trephinations were found on dolichocranial and brachycranial individuals, while in the mesocranials they were less seldom found. The initial hypothesis regarding the origin of the trephination on the territory of Romania belonged to Olga Necrasov, who considered that it had been brought here by the steppic populations, the so called bear-

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ers of the tumular ochre burials (Pit grave culture), during their nomadic movement from North of the Black Sea towards the today Romania. Later on, she was misled by the skull from Girov, belonging to the Cucuteni-Tripolje culture. Nevertheless, she considered that, despite that this was assigned to a local population, the Neolithic communities had seldom performed such interventions. In fact, things were more simple, as the bearers of the Cucuteni-Tripolje culture were the first people from today Romania who interrelated with the bearers of the Pit grave culture. In the opinion of the author, the nomadic people had a more extended medical knowledge, as they permanently had to face new and new challenges, both from the environment, and from the other communities with whom they got in contact. As the Cucuteni-Tripolje people had a higher level of development, they surely must have realized the importance of such a medical practice, and they hurried to learn step by step from the nomadic "surgeons" and then put it into use. This is how, by dissemination, it could reach Girov, the site where it was used to save the life of a woman aged at 40-50, by performing a risky intervention, on the occipital region, which is seldom used for such operations, due to the difficulty of removing the muscles existing in that area. But, even under such conditions, the woman had survived for a short time after the surgery, as shown by the presence of some regeneration traces in the tissue that surrounded the trephination hole.

Another interesting situation was the one from Livezile (Alba County). In that Early Bronze Age site, in a tumulus, it was discovered the burial of a woman aged at 35-40 years. On the skull of the respective individual it was identified the largest trepanning hole in Romania, with its outside dimensions of 12.2 cm x 7.2 cm. This was situated on the left parietal and had an oval shape. Considering the way the intervention had been carried out, as well as the appearance of the cranial bone, it was concluded that the surgery had been done by a skilful person, upon a person in full health condition. At places, traces of healing could be detected, which means that the respective person had survived longer than one year afterwards. It is not known the reason for doing this trephination, but, anyway, the presence of a cranial trauma at that level is excluded.

We should also mention here one of the multiple trephinations found on the territory of Romania. We will refer here to the male individual, uncovered during the excavations undertaken in Burial no. 26 belonging to the Early Bronze Age necropolis (C.18), from Zimnicea. The skeleton had the male sex and the age of 50-60 years. On its skull, there were evident traces of four trephinations, one situated on the left parietal and the other three on the right parietal. Two necrotic lesions have been detected on the endocranial part of the respective skull. The damaged areas surpassed in dimensions the zone with incision from the left parietal bone. The conclusion that could be reached by the anthropologist who studied the mentioned skull was that all four incisions were unfinished trephinations, carried out upon a living subject who, unfortunately, had died before the end of the surgeries. It was also aborted the hypothesis of performing the operation just for taking over bone roundels. If this had been the purpose, they would have surely been taken away but, instead, they were found in place. The reason for making the interventions upon the right parietal could not be established, as no endocranial lesion could be found at that level.

All the presented cases are richly illustrated, grouped on historical periods which, in their turn, are also rendered as graphs and tables, in order to create a more clear image about the approached topic and its evolution in time.

Another chapter describes the **Symbolic Trephination** (p. 170-186), with all its features and following the same presentation scheme like the one used for the "regular" trephination (historical data, operating mode etc.). This option was taken due to the obvious differences existing between these two trephination types. For the symbolic one, some pictographic representations of the surgery during the Middle Ages have been also added and cumulated with the other illustrations. Besides, there have been also included beliefs about the symbolic trephination, but also the way it was used in the initiation rites. Afterwards, it was presented the monastic trephination, being well known that the monasteries secretly preserved different medical practices, including the mentioned one.

In her volume, Alexandra Comşa had also included the aspects regarding the **Sincipital T** (p. 187-191) and **Pseudo-Trephinations** (p. 192-201), the later ones being perforations that resembled trephinations, but produced by other causes, usually taphonomic ones.

Towards the final part of her approach of human trephination, it has also been added a chapter about the respective surgery as it has discovered in the contemporary period (**Trephinations in Modern and Contemporary Times**; p. 202-205), with evidences that lasted up to the first half of the

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20th century, in some regions neighbouring Romania. In the end, the volume has included an interesting chapter about **Pastoral Trephination** (p. 206-213) and **General Conclusions** (p. 214-217). The book also contains a **Summary** (**Rezumat)** in the Romanian language (p. 218-226).

The used bibliography shows the strong knowledge about the modern research referring to this topic, as the book has cited both papers written and published by Romanian specialists, but also, by foreign ones, especially from the space of the English language.

The **Preface** of the volume (**Comşa's approach to trephination and ancient herbalism in context of medical anthropology**, p. 10-12), has been conceived by Dr. Lolita Nikolova, Director of the International Institute of Anthropology from Salt Lake City, Utah, United States of America, while *peer editor* for the English language was Dr. Barbara Voytek, professor at Berkeley University of California, from the United States of America.

The hereby presented book is an interdisciplinary work of great scientific value, addressed to the scholars in the fields of physical and cultural anthropology, archaeology, history of medicine, ethnology etc. The volume is based upon the own research of the author, but, as I have already mentioned above, also upon a rich and recent bibliography, as well. As the work has been published in the English language, this facilitates its circulation on the specialized international market, a fact that is already confirmed by the great number of foreign readers.

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LEXIKON ZUR KELTISCHEN ARCHÄOLOGIE

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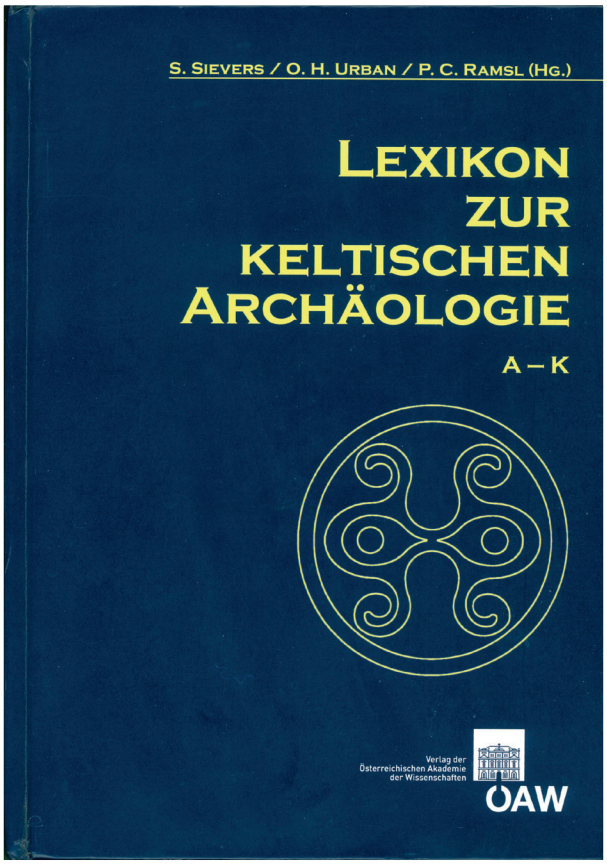
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Fig. 1 – Coperta vol. 1 – A-K.

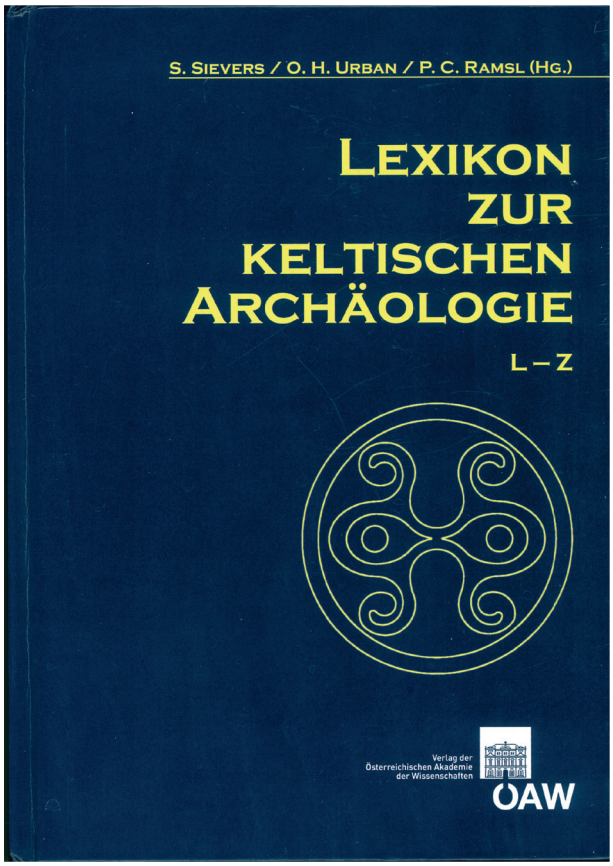
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Fig. 2 – Coperta vol. 2 – L-Z.

Lexiconul de arheologie celtică este, de bună seamă, o lucrare colectivă în două volume, cuprinzând 2.207 pagini: vol. I, 1.110 pagini prezintă vocile de la A-K, iar vol. II, 1.097 de pagini, vocile de la L-Z.

Lucrarea a fost elaborată de o echipă internaţională de coordonare compusă din 17 specialişti (între aceştia apărând, în calitate de coordonator pentru România, Mircea Babeş), alături de peste alţi 300 de autori din Anglia, Austria, Belgia, Cehia, Croaţia, Elveţia, Franţa, Germania, Irlanda, Italia, Luxemburg, Polonia, România, Serbia, Slovacia, Slovenia, Spania şi Ungaria.

Alţi autori din România sunt Margareta Arsenescu, Laura Dietrich, Theodor Isvoranu, Aurel Rustoiu, Lucian Vaida, care au selectat, conceput şi redactat un total de 111 voci referitoare la arheologia celtică de pe cuprinsul României.

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Fig. 3 – Pagina de gardă, coordonatori, vol. 1, A-K.

După cum îi arată chiar titlul, este vorba de un substanţial instrument de lucru privind arheologia celtică (vestigii atribuite sau atribuibile celţilor) şi, totodată, după părerea mea, o pildă de realizare sistematică, atentă şi îngrijită în conţinut şi formă, sub conducerea şi armonizarea unei echipe editoriale austriaco-germane.

Astfel de lucrări sunt mereu folositoare şi bine venite, chiar dacă, din cauza răgazului îndelungat de la momentul conceperii lor şi până când pot fi oferite publicului, ele niciodată nu reprezintă „ultima oră" a cercetării. În schimb, atunci când sunt temeinice şi amănunţite, rămân în circuitul ştiinţific principal câteva decenii, uneori şi mai mult. În această privinţă nici lucrarea de faţă nu face excepţie. Aceasta cu atât mai mult cu cât în ultimele două-trei decenii cercetările privitoare la arheologia celtică au cunoscut un avânt vădit (care poate fi de altfel observat, fie şi parţial, inclusiv la noi în ţară). În perioada amintită, atât săpăturile arheologice, dar şi expoziţiile, reconstituirile în aer liber sau spaţii închise, precum şi numeroasele publicaţii de specialitate sau de popularizare stau mărturie interesului în creştere al publicului larg, alături de cel al specialiştilor.

Cred că putem spune fără greş că „celtologia", fie că e privită ca o parte a arheologiei sau istoriei a devenit de mai multă vreme şi un fel de modă, care se manifestă sub forme diverse, uneori de la aşa-numitele re-enactment (care presupun vestimentaţie de epocă, împreună cu armamentul specific prezentate în cadrul unui gen de festivaluri şi – de ce nu ? – multă bere *post factum*) până la turism tematic, creaţii muzicale ale unor formaţii vocale ori orchestrale sau cursuri de limbă celtică modernă sau veche.

Lexiconul de faţă are, însă, ca obiectiv ilustrarea îmbogăţită şi, în măsura posibilului, actualizată a evidenţei arheologice şi istorice, pornind de la o perspectivă ştiinţifică critică şi, pe cât se poate, obiectivă.

Desigur, în cuprinsul său, lexiconul oferă păreri, descrieri şi concluzii „autorizate şi oficiale" ale multor specialişti, pornind de la piese / artefacte, monumente, situri, texte, etc., până la noţiuni generale sau specifice legate de celtologie. Însuşi formatul şi concepţia lucrării sunt „tradiţionale", ceea ce uneori naşte comentarii sau păreri mai puţin binevoitoare. Mă voi mărgini să spun aici că un format şi conţinut bun nu merită schimbate doar de dragul influenţelor şi curentelor mai vechi sau mai noi din arheologie, ori în general în raport cu discuţiile legate de concepţia şi rolul ştiinţelor în genere.

Este de la sine înţeles că lucrările de natură enciclopedică nu sunt şi nu pot fi niciodată complete şi definitive, deşi sunt persoane care le privesc astfel. Mai cu seamă în prezent, fapt vizibil pentru oricine, cantitatea de informaţie nouă anuală pur şi simplu a explodat, încât este tot mai greu de stăpânit şi controlat, iar o singură persoană, ba chiar şi un grup mai mare (cum este acela care a colaborat la alcătuirea lucrării de față), nu poate face faţă nici măcar de a citi tot ce apare în publicaţii sau se propagă prin alt gen de surse și mijloace.

Acestea fiind spuse, socotesc că lexiconul este o realizare excelentă prin extensie, seriozitate, spirit de echipă şi nu mai puţin prin evidentele calităţi grafice – sobre și în același timp elegante. Ştiu în acelaşi timp de la unul dintre editori (şi chiar dacă n-aş şti, ne-am putea închipui) câtă muncă răbdătoare şi neobosită presupune o astfel de întreprindere de mare întindere şi cu un grup foarte numeros de autori de vârste, origini şi proveniente diferite. Pe lângă inteligenţă şi largi cunoştinţe este nevoie de o organizare impecabilă, alături de o răbdare de fier, pe lângă multă înţelegere şi, nu mai puțin, diplomaţie. Faţă de toate cele expuse mai sus, nu-mi rămâne decât să salut cu plecăciune apariţia lexiconului. Totodată, ţin să-i felicit în mod special pe autorii români pentru contribuţia lor la lexicon, lucrare de excelenţă şi prestigiu.

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CONTRIBUŢII ARHEOLOGICE ŞI ICONOGRAFICE LA CERCETAREA SITULUI „CETATE” DE LA ZIMNICEA

Autor: Daniel SPÂNU

Vorwort: Dragoş MĂNDESCU

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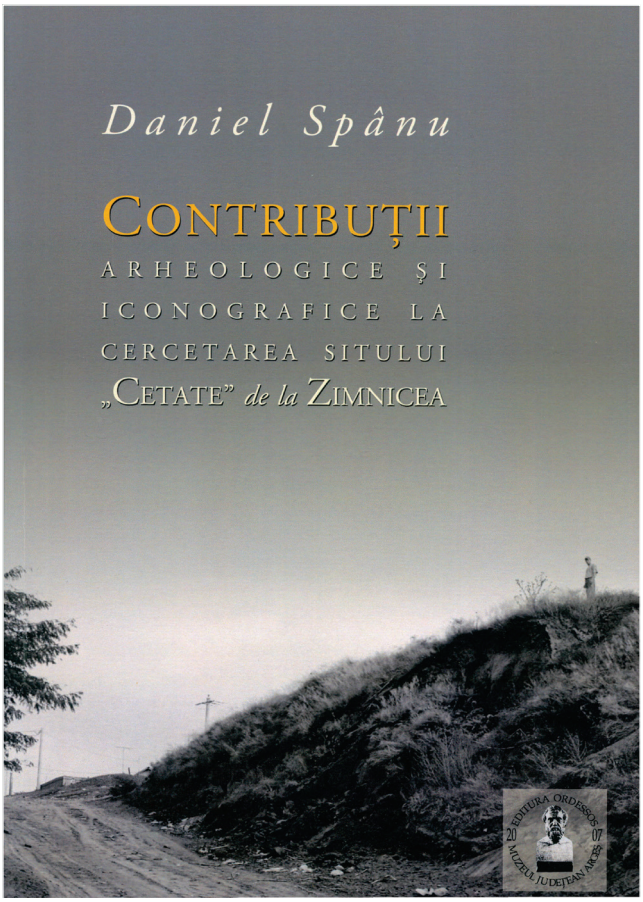

Der neulich veröffentlichte Band – über den es mir Freude macht einige Worte zu schreiben – ist eine „andere” Buchgattung als die gewöhnlich den verschiedenen archäologischen Themen gewidmet wird. Er ist eine kritische „Geschichte“ einer archäologischen Stätte, die eher unter einem ungünstigen Schicksal zu leiden hatte. Im zweiten Teil seines Buches fanden zwei ausgezeichnete Fallstudien, die die Wichtigkeit der Grabungsstätte und die Notwendigkeit ihrer eingehenden Erforschung unterstreichen, ihren Platz. Es folgt ein Teil, der die Bewertung und die Schlußfolgerungen hinsichtlich dem was gesagt werden kann und was in Überfluß über die protohistorische Ansiedlung geäußert wurde, einschließt. Im Anhang ist der Großteil der dokumentarischen Grundlage, welche von Daniel Spânu im „Dossier der Angelegenheit“ benützt wurde, die

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Grabungsbücher mit den Anmerkungen der Grabungskampagne des Jahres 1924 (Wiedergebungen) und die Listen der archäologischen Materialien derselben Grabungskampagne und den nachkriegszeitlichen Feldforschungen, zu finden. Es muss die Auffassung und Qualität der Illustration, die mit Geduld, Sachkenntnis und Sinnreichlichkeit vom Autor zusammengestellt wurde, hervorgehoben werden. Zu bedauern ist nur, dass den Tafelerklärungen einen abgesonderten Platz gefunden wurden, Tatsache die ein Hindernis in der Korrelation dieser mit den Abbildungen darstellt.

Hinsichtlich dem Schicksal der Grabungsstätte „Cetate / Burg“, wenn dieses nur ein Einzelfall wäre, dann würde unser Gewissen beruhigter sein, leider aber ist die Anzahl der Grabungsstätten, die sich dieser Kategorie zureihen, unzulässig hoch.

Einerseits ist die hier besprochene Arbeit ein Versuch der Gestaltung einer Monographie der Siedlung, die in der Fachliteratur gut bekannt ist und immer erwähnt wurde, das obwohl die Substanz der tatsächlichen Informationen vage und in Synthese- und Interpretierungsveröffentlichungen verstreut ist. Diesbezüglich muss gesagt werden, dass nachträglich der Analyse und Besprechung der dokumentarischen Grundlage, zusammengestellt nach einer nennenswerten Anzahl von Grabungskampagnen (mit ihrer Ablaufungsgeschichte), die Schlußfolgerungen aus verschiedenen Gründen, viele davon objektiv, andere subjektiv, eher entmutigend sind.

In die erste Kategorie könnte die Gegebenheit der Siedlung, mit ungleich intensiven Bewohnungen aus verschiedenen Epochen, eingeschlossen werden. Die archäologischen Ablagerungen störten eine die andere, während die natürliche oder die anthropische Erosion alles noch schwieriger zu verfolgen und zu verstehen machte. Zu den subjektiven Gründen können, die Art wie Archäologie in Rumänien getrieben wird, beginnend mit der Finanzierung – welche die eigentliche Forschung im Feld zur Folge hat, die Weise wie die Dokumentation zustande kommt und aufbewahrt wird, die Art wie die archäologischen Materialien aufgelesen und restauriert werden, die Verwertung dieser in Publikationen, Ausstellungen u.s.w., erwähnt und diskutiert werden. Was deutlich zu entnehmen ist, ist oft die bittere, manchesmal ironische, andersmal sogar höhnische Tonart gegenüber den Forschern die mehr gegraben als systematisch veröffentlicht haben. Die Bemühung des Autors hat letztendlich als Ausgangspunkt die Feststellung, dass die Ansiedlung von Zimnicea seit einigen Jahrzehnten Teil der berufenden archäologischen Theorien und des Folklores ist. Dabei ist die materielle Substanz der Dokumentation oder des erworbenen archäologischen Inventares beträchtlich geringer, das im Lichte den häufigen Verweisungen oder Kommentaren in Bezug auf die gemachten Entdeckungen, als sie sein sollten. Die Dokumentation war, den Nachforschungen des Autors folgend, minimal, entweder ungeeignet aufbewahrt (ein Teil davon scheint verlorengegangen oder beschädigt zu sein) oder ein Großteil des Materials wurde nicht bearbeitet, während von einer organisierten Veröffentlichung unmöglich gesprochen werden kann.

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Aus solchen Umständen entspringt auch das Bedauern des Autors, insbesondere, dass die verwendeten finanziellen Mittel nach dem Zweiten Weltkrieg viel reicher waren als die die in den ersten Jahren des dritten Jahrtausends zur Verfügung gestellt wurden. Trotz dessen lagen die Ergebnisse der Auswertung der Forschungen im Feld beträchtlich weit entfernt gegenüber den Summen die in der Erforschung der Ansiedlung benützt wurden. Das ist u.a. die Folge, dass in der rumänischen Archäologie niemals die Forschungen im Feld ihren rechtmäßigen Platz in der „Ausgrabungsorganisierung” gefunden hat, Stellung die den Weg potentieller Aktivitätsbedingungen, z.B. bessere Gestaltung und Aufbewahrung der primären Dokumentation und des archäologischen Materials, geebnet hätte. Dieses ist selbstverständlich nur eine der Seiten des Problems, die Kehrseite ist eher an die Unzulänglichkeit des Hilfspersonals, beschäftigt mit der Bearbeitung des Materials (Waschen, Beschriftung, Restaurierung, Klassifizierung, Zeichnung, Unterbringung u.s.w.), der Gestaltung und Aufbewahrung der primären Evidenz und der Vorbereitung der Dokumentation zur Bearbeitung, zu binden. Zweifellos kann eine einzelne Person nicht alle der erwähnten Tätigkeiten in befriedigenden Bedingungen und einer bestimmten Zeitspanne erledigen. Das Resultat solcher Mängel führt zur Einsetzung von einer Art Gleichgültigkeit und Interessenlosigkeit, welche nichts anderes zur Folge haben, als eine noch größere Verminderung der Menge und Qualität der Publikationen und, allgemein, der Mitteilung der erworbenen Ergebnisse unter den Wissenschaftlern und den Laien.

Der Autor hat versucht (und es ist ihm auch gelungen) alle wichtige Informationen bezüglich der „Cetate“-Ansiedlung von Zimnicea, beginnend mit den ersten Ausgrabungen („Grabungen“) aus dem 19. Jahrhundert, folgend mit denen zwischen- und nachkriegzeitlichen, die aus den ’60-’70 Jahren und abschließend mit den Feldforschungen am Anfang des neuen Jahrtausends, durchzukämmen. Gemeinsamer Nenner all dieser Grabungen ist, dass die Forschungsergebnisse nicht systematisch veröffentlicht wurden. Statt dessen, erscheinen in synthetischer Form in verschiedenen Publikationen oder Mitteilungen Informationen und Schlußfolgerungen, eher urteilfällend anstatt erläuternd. Selbstverständlich kann das Gesamtbild bezüglich der Ansiedlung nur teilweise und unsicher sein, das insbesondere, weil auch die mittelalterliche Bewohnung aus dem 15.-16. Jh. beträchtlich die vornliegenden Wohnschichten in Unordnung gebracht hat. Auch nachher wurde die archäologische Stätte einem bedeutenden natürlichen, aber insbesondere anthropischen Erosionprozeß, in Zusammenhang mit den Notwendigkeiten der in der Nähe lebenden Einheimischen oder dem Ablauf der geschichtlichen Vorkommnissen, ausgesetzt. Angesichts dem Erwähnten, gibt es geringe Chancen für eine systematische Erforschung und eine angemessene Bewahrung.

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Daniel Spânu bietet uns eine Gefühlsreiche, eher unglückliche „Erzählung“, der Erforschung einer protohistorischen archäologischen Stätte, zu der er hält und welche sicherlich ein besseres Schicksal verdient hätte, an. Das insbesondere wenn an ihre Wichtigkeit in den hinweggeschwundenen Zeiten und an die Tatsache, dass in der Nähe sich eine großflächige Nekropole, teilweise zeitgleich mit der La Tène-Bewohnung, gedacht wird. Diese Erzählung ist aber sehr ernst und die vorgelegten Schlußfolgerungen haben den bitteren Geschmack der Enttäuschung, Sehnsucht und Unfähigkeit. Der Autor bringt, zusammen mit der Erzählung und den nüchternen und kritischen Berichten, zwei Fallstudien zu verschiedenen Themen in Bezug auf die Funde aus Zimnicea als Beispiele. Ein Teil dieser schon vorher veröffentlicht, wurde tiefgreifender zustande gebracht und neugeformt um dem vorhandenen Band einverleibt zu werden. Jedwelcher und jeder dieser Fallstudien stellt genauso viele Argumente durch welche die Wichtigkeit der Grabungsstätte und die Unzufriedenheit des Autors gegenüber dem gegenwärtigen Sachstand bekräftigt werden, dar. Eine einbegriffene Schlußfolgerung ist die, dass die archäologische Stätte eine „Persönlichkeit“ hat, der die neueren oder älteren Forschungen nicht die nötige Achtung, obwohl sie es verdient hätte, entgegengebracht haben. Ich möchte hinzufügen, dass leider Situationen dieser Art oft angetroffen werden. Die Reaktionsfähigkeit der Archäologenzunft – um solche Unannehmlichkeiten zu verbessern – ist schwach und unorganisiert, genauso wie im allgemeinen auch die institutionelle Hilfe. Werden die Gegebenheiten in ihrer Gesamtheit betrachtet, es ist viel bequemer (und gleichzeitig entmutigend) das „schwere Erbe“ der verschiedenen vergangenen Epochen wachzurufen.

Abschließend muss gesagt werden, dass dieser Band ein Beispiel für die Weise in der mit Interesse, Disziplin und Gefühl die Forschungstaten aus der Vergangenheit verwertet, teilweise rekonstruiert und kritisch und logisch um eine klarere Perspektive zu erlangen und um leichter verstanden zu werden, werden können. So zum Beispiel, das Vorhandensein der Befestigung rings um die archäologische Stätte „Cetate“ stützt sich nicht auf eine reelle dokumentarische Grundlage, das obwohl die Stätte, im allgemeinen, der Kategorie der befestigten Siedlungen, wie sie in zahlreichen Berichten und Kommentaren erscheint, zugeordnet wurde.

Was ein Buch dieser Art gleichzeitig aussagen will, ist, dass es besser nicht geschrieben hätte sein sollen, denn solche mißlichen Situationen müssten wir eigentlich nie antreffen...

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PANNONIA, DACIA ŞI MOESIA ÎN IZVOARELE GEOGRAFICE ANTICE

Autor: Florin FODOREAN

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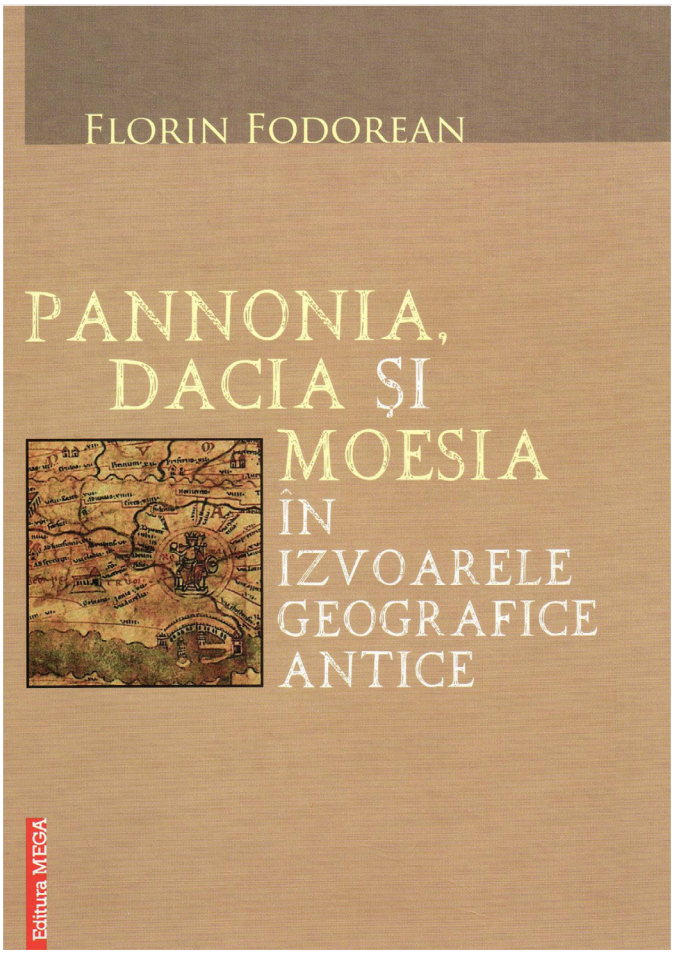

Începem recenzia noastră prin prezentarea cuprinsului lucrării lui Florin Fodorean. În continuare, pentru facilitarea expunerii, vom face trimiteri doar prin indicarea numărului capitolului (sau a subcapitolului) şi a paginilor respective, fără a mai relua de fiecare dată titlurile. Consultând cuprinsul ori de câte ori va considera necesar, cititorul va putea urmări cu uşurinţă expunerea noastră. De asemenea, toate referirile la Florin Fodorean pentru prezenta lucrare, le vom face prin apelativul „*autorul*".

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Prin parcurgerea cuprinsului se poate constata o inadvertenţă între titlul şi conţinutul lucrării. Astfel, deşi din titlu reiese că vor fi analizate provinciile romane Pannonia, Dacia şi Moesia în izvoare geografice, lucrarea este dedicată în cvasi-totalitate analizării acestor provincii prin prisma a două izvoare cartografice romane: *Tabula Peutingeriana* şi *Itinerarium Antonini*. Deşi sursele geografice şi cartografice prezintă evidente asemănări, ele sunt însă distincte, atât ca mod de realizare, cât şi ca utilitate. Caracterul complementar al acestora l-a determinat, în urmă cu aproape patru decenii pe Ion Popescu-Spineni să le analizeze împreună în lucrarea sa, *România în izvoare geografice* şi *cartografice*[1]. Încadrarea celor două documente romane menţionate mai sus în categoria izvoarelor cartografice este, de altfel, făcută şi către de autor în lucrare (p. 194: „[…] *cele mai importante documente cartografice din Imperiul Roman: Tabula Peutingeriana şi Itinerarium Antonini*"), fapt ce face să fie de neînţeles confuzia din titlu. Mai mult, autorul perpetuează această încadrare eronată în titlurile capitolelor 4-7, deşi în cadrul acestora analiza se limitează doar la *Tabula Peutingeriana* şi *Itinerarium Antonini*. În consecinţă, prevenim pe cititorul care se aşteaptă la un corpus de texte geografice antice comentate referitoare la Pannonia, Dacia şi Moesia că va fi dezamăgit. În pofida titlului, lucrarea nu abordează nimic de acest gen.

În *Cuvânt înainte*, acad. Mihai Bărbulescu apreciază că „*Ne aflăm în faţa unei lucrări complexe şi utile pentru arheologia romană din epoca imperială*." (p. 12), îl caracterizează pe autor ca fiind „[…] *cel mai bun specialist român în problematica drumurilor romane*" (p. 11), „[…] în pas cu orientările actuale din cercetarea europeană" (p. 12) şi consideră *Tabula Peutingeriana* şi *Itinerarium Antonini* „*Cele mai importante documente cartografice ale Antichităţii* […]" (p. 11). Considerăm că ultima afirmaţie necesită câteva precizări. Deşi cele două documente au exercitat şi continuă să exercite un interes special din partea specialiştilor, considerăm că punerea acestora în vârful ierarhiei producţiilor cartografice antice ar plasa într-un nemeritat con de umbră realizări anterioare şi contemporane. Reprezentări cu atribute cartografice certe datează din mileniul II a.Chr. şi provin din Egipt[2] şi Babilon[3]. Unele dintre acestea folosesc notaţii cartografice comparabile cu cele din prezent: legendă explicativă, orientarea pe baza punctelor cardinale, reprezentarea la scară, redarea color a reliefului şi a vegetaţiei, figurarea reţelei de drumuri şi a construcţiilor existente în zonă etc.

De asemenea, pe lângă cele două documente cartografice romane mai există un al treilea, din păcate neglijat în prezenta lucrare. Este vorba despre *Corpus Agrimensorum Romanorum*[4]. Deşi

[1] Popescu-Spineni 1978.

[2] Shore 1987.

[3] Millard 1987.

[4] Blume *et alii* 1848; Blume *et alii* 1852; Thulin 1913.

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mai greu de abordat şi analizat, necesitând noţiuni de matematică şi tehnologie antică, acesta reprezintă cheia înţelegerii topografiei şi cartografiei romane. Alcătuit din 35 de scrieri, redactate de-a lungul a cinci secole, de la Frontinus (sec. I p.Chr.) până la Boethius şi Cassiodorus (sec. V p.Chr.), *Corpus*-ul conţine inclusiv textul lui Balbus, *Expositio et ratio omnium formarum*, la care autorul face, la un moment dat, referire. Graţie unui studiu introductiv[5] şi a unei recente republicări[6], *Corpus*-ul este, în momentul de faţă, un document accesibil cercetătorilor interesaţi. În încheierea comentariilor noastre asupra *Cuvântului înainte*, dorim să fim în nota discursului lui Mihai Bărbulescu, care menţionează: „*Unii din foştii mei studenţi poate că îşi amintesc cum încercam să creionez la curs atmosfera în care – ceva în genul bibliotecii mânăstirii din Numele trandafirului – se copia (ori, poate, se compila din documente antice păstrate acolo, pierdute ulterior) prin veacul al XIII-lea, Tabula Peutingeriana …*" (p. 11). Foarte probabil că acesta a fost şi drumul *Corpusului Agrimensorum Romanorum* până la noi, copiat în scriptorii mânăstireşti, în sec. VI şi IX, de către călugări dăruiţi cu harul de a mânui meşteşugit condeiul, dar prea puţin înzestraţi cu darul matematicii. Aşa se face că cele câteva copii, aflate în prezent în bibliotecile din Wolfenbüttel şi Vatican, sunt ilustrate cu schiţe viu colorate, dar conţin numeroase erori de copiere, făcându-le adesea greu de înţeles.

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În capitolul 1, autorul prezintă patru aspecte, de natură introductivă: delimitarea spaţiului geografic supus analizei şi argumentarea alegerii (p. 13-14), scopurile urmărite de prezenta lucrare (p. 14-15); metodologia utilizată (p. 15) şi structura lucrării (p. 15-16). La final (p. 16), autorul menţionează şi durata cercetărilor întreprinse (trei ani şi două luni).

Alegerea spaţiului geografic ocupat de către Pannonia, Dacia şi Moesia este justă, chiar dacă autorul omite să menţioneze argumentul cel mai important. Evidentele trăsături comune ale celor trei provincii romane sunt generate de poziţia lor geografică, fiind situate în bazinul hidrografic al Dunării, iar valea acesteia, împreună cu cele ale afluenţilor, au constituit, încă din preistorie, căile de acces din regiune[7]. Prin urmare, strânsele legături dintre cele trei provincii se datorează reţelei de drumuri, facilitată de configuraţia topografică. Dat fiind că subiectul lucrării se referă tocmai la drumuri, considerăm că problematica legată de peisajul natural este insuficient tratată de către autor.

Autorul prezintă scopul lucrării sale prin intermediul a 10 întrebări (p. 14-15): „*1. Sunt diferite informaţiile din Tabula Peutingeriana şi Itinerarium Antonini? 2. Cum putem stabili acest lucru? 3. De ce anumite provincii (Dacia, spre exemplu) nu sunt menţionate în Itinerarium Antonini? 4. În ce fel alte surse, precum Notitia Dignitatum, Itinerarium Burdigalense sive Hyeroslimitanum sau Cosmographia Anonimului din Ravenna prezintă cele trei provincii? 5. Cum au fost realizate (compilate, create) Tabula Peutingeriana şi Itinerarium Antonini? 6. Prin investigaţii amănunţite cu referire la cele trei provincii (Dacia, Pannonia şi Moesia) pot fi obţinute indicii noi cu privire la datarea celor două itinerarii? 7. Până în prezent, cu unele excepţii, istoricii le-au analizat în întregime sau uneori şi-au îndreptat atenţia asupra unor detalii inutile, nesemnificative. Ce alte criterii metodologice sau metode noi se pot folosi pentru datarea acestor documente, în afara celor clasice? 8. Există vreo diferenţă între scopul creării celor două itinerarii? 9. Presupunând că putem identifica noi criterii pentru datare, vor fi acestea utile pentru a extinde metoda în scopul datării informaţiilor din alte provincii, în afara celor care fac obiectul prezentei lucrări? 10. Atât Tabula Peutingeriana cât*

[5] Dilke 1971.

[6] Campbell 2000.

[7] Schuster, Morintz 2006.

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şi Itinerarium Antonini, menţionează, fiecare, aproximativ 2.700 de localităţi antice. Pot fi făcute comparaţii, astfel încât să aflăm elemente noi privind datarea acestor itinerarii, pornind de la menţionarea anumitor localităţi?".

Referitor la metodologia pe care are de gând să o utilizeze pentru a răspunde la aceste întrebări, autorul menţionează (p. 15): „*Cu aceste întrebări am început cercetarea de faţă şi am pornit de la câteva premise. Am realizat că o metodă eficientă de analiză a celor două documente, puţin folosită, este compararea distanţelor dintre localităţi. Poate fi această metodă utilă? Pot apare informaţii noi? Răspunsurile la aceste întrebări se află în capitolele lucrării noastre"*. Succinta prezentare, a ceea ce cu greu putem numi metodologie, stârneşte numeroase nedumeriri. Autorul are de gând să răspundă la cele 10 întrebări doar comparând distanţele dintre localităţi consemnate în *Tabula Peutingeriana* şi *Itinerarium Antonini*? Mai exact, tot demersul se limitează la compararea de elemente liniare corespondente din două surse cartografice?

Capitolele 1-3 sunt dedicate descrierilor arheologice, istorice şi geografice ale provinciilor Pannonia, Dacia şi Moesia. Ponderea celor trei componente este diferită, cea istorică prevalând, iar cea geografică fiind limitată doar la resursele naturale (p. 23, 26, 41). Pentru fiecare provincie sunt prezentate cauzele şi modul în care au fost cucerite, organizarea militară şi structura administrativă. Autorul acordă un spaţiu mai generos Daciei (17 pag., comparativ cu 6 pag. pentru Pannonia, respectiv 5 pag. pentru Moesia), capitolul destinat acestei provincii fiind şi singurul împărţit în subcapitole (2.1.-2.9.). Dintre acestea, ne vom opri asupra subcapitolului 2.5., în care se face referire la mensorul Balbus (p. 32-33). Deşi acesta este plasat de către autor în timpul lui Traian (afirmând, fără să dea vreo trimitere, că „[…] *Traian a fost însoţit în Dacia de Balbus* […]", p. 32, şi că „[…] *a rămas în Dacia încă un an după momentul cuceririi*", p. 33), este imposibilă o datare certă. O. A. W. Dilke oferă iniţial două variante: perioada lui Domiţian sau cea a lui Traian[8]. Ulterior, optează pentru campania din 89 p.Chr a lui Domiţian, ocazie cu care mai prezintă şi o altă ipoteză: „*Scholars are apt to say that Balbus had been serving in Dacia, since he refers to that nation, but his words could perhaps better tally with participation in the expedition against the Germanic Tribes*"[9]. B. Campbell este mai vag, propunând sfârşitul sec. I p.Chr.[10], iar M. J. T. Lewis, propune campaniile dacice ale lui Traian[11].

Importanţa textului lui Balbus se datorează mai multor factori. În primul rând, este singurul text păstrat, redactat de către un martor ocular al conflictelor militare daco-romane; faptul că ar fi activat în timpul lui Domiţian sau al lui Traian, este mai puţin important. În al doilea rând, textul îl recomandă ca fiind posesorul unor solide noţiuni de geometrie euclidiană. Pe baza acestor noţiuni, el menţionează trei aplicaţii de topografie militară; lipseşte însă descrierea modalităţilor de realizare, fapt datorat, poate, stării fragmentare a documentului. Din păcate, în studiile specialiştilor români, noţiunile de natură tehnică ale lui Balbus au fost ignorate[12]. Excepţie face o traducere în limba română a textului, însoţită de comentarii foarte sumare[13]. Revenind la cele trei aplicaţii topografice descrise de Balbus, acestea constau în: trasarea a două aliniamente perpendiculare, măsurarea lăţimii unui râu de pe un mal, celălalt fiind inaccesibil şi determinarea înălţimii munţilor ce urmau a fi cuceriţi. Primele două aplicaţii sunt în prezent pe deplin elucidate, atât ca instrument utilizat (*groma*), cât şi ca metode folosite. Pentru prima aplicaţie, maniera de lucru era identică cu cea utilizată la centuriaţii[14]. Cea de-a doua implica un procedeu ceva mai laborios[15], fiind imperios necesar ca toate operaţiunile să se execute de la distanţă, „*without venturing within bowshot of the enemy*"[16]. A treia aplicaţie, însă, determinarea înălţimii unui munte ridică probleme, necesitând utilizarea unui alt instrument decât *groma*. Ar fi putut fi *dioptra*? Analizând noţiunile descrise de Balbus, strict din punct de vedere tehnic, este o ipoteză verosimilă, dar neatestată la romani[17]. Se poate vorbi doar de două indicii,

[8] Dilke 1962, 171.

[9] Dilke 1971, 42.

[10] Campbell 1996, 95.

[11] Lewis 2001, 309.

[12] Petolescu 2010, 137-138.

[13] Crişan, Timoc 2005.

[14] Dilke 1962, 174-175 şi fig. 1; Campbell 1995, 541-542 şi diagrama 1; Campbell 1996, 84-86 şi fig. 1,

[15] Kiely 1947, 277-278 şi fig. 161; Dilke 1971, 60 şi fig. 11, 12.

[16] Lewis 2001, 47.

[17] F. Fodorean, în lucrarea sa, *Drumurile din Dacia Romană*, face următoarea afirmaţie: „*Trei instrumente au fost folosite permanent de către constructorii de drumuri romane: dioptra, groma* şi *chorobatul*" (Fodorean, 2006, 35), pe care le ilustrează prin reconstituiri preluate de la J.-P. Adam (Adam 1982, fig. 1, 5, 17). Având în vedere că nu există nici o dovadă care să atestate utilizarea *dioptrei* în antichitate, precum şi faptul că în scrierile romane nu există nici o menţiune referitoare la acest instrument, considerăm afirmaţia autorului o totală neglijenţă.

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unul dintre acestea ducând tot la Balbus: *„We have twice had occasion, however, to wonder if the dioptra might have been applied in a Roman context: in mapping, as for the Forma Urbis, and when Balbus found the heights of mountains*“[18]. Încheind digresiunea noastră referitoare la Balbus, suntem total de acord cu autorul când afirmă că lucrările topografice efectuate de către Balbus şi alţi *mensores* „[…] *au servit ca sursă, mai târziu, pentru reprezentarea provinciei Dacia în Tabula Peutingeriana*” (p. 31); adăugăm, însă, că înţelegerea acestora din urmă, ca produse cartografice derivate, nu poate fi făcută fără o identificare corectă a tehnicilor şi instrumentelor cu care au fost colectate datele primare.

Capitolul 4 constă într-o succintă trecere în revistă a lucrărilor care analizează *Tabula Peutingeriana* şi *Itinerarium Antonini* la nivel general (4.1., 4.2.) şi a celor care se concentrează asupra menţionărilor pentru Pannonia (4.3.), Dacia (4.4.) şi Moesia (4.5.). Pentru primele două subcapitole, consultând trimiterile bibliografice (de la notele 119-125, respectiv, 150-156) constatăm cu surprindere absenţa oricărei trimiteri la lucrările lui O. A. W. Dilke. Deşi cunoaştem că observaţiile autorului referitoare la opera savantului britanic sunt adesea critice[19], considerăm însă ca inadmisibilă neincluderea sa în lista celor care au adus contribuţii fundamentale la studierea celor două documente cartografice romane. Apariţia, în anul 1985, a lucrării *Greek & Roman Maps* a suscitat un enorm interes din partea specialiştilor. Deşi observaţiile critice nu lipsesc[20], este unanim recunoscută importanţa, necesitatea şi caracterul de noutate al lucrării. *Tabula Peutingeriana* şi *Itinerarium Antonini* sunt analizate în capitolul VIII (*Roads, Maps and Land Itineraries*, p. 112-129), alături de alte documente cu destinaţie similară. Doi ani mai târziu, la monumentala lucrare editată de către J. B. Harley şi D. Woodward, dedicată cartografiei în Preistorie, Antichitate şi Evul Mediu în spaţiul european şi mediteranean[21], O. A. W. Dilke contribuie prin elaborarea a şapte capitole (5, 11-16). Capitolul 14[22] (*Itineraries and Geographical Maps in the Early and Late Roman Empires*, p. 234-257) este o reconsiderare, extinsă cu o serie de completări, a capitolului VIII din *Greek & Roman Maps*. Preocupările de pionierat ale lui O. A. W. Dilke pentru topografia şi cartografia romană au contribuit fundamental la dezvoltarea acestor domenii de cercetare. Neincluderea lor în lista bibliografică denotă o selecţie subiectivă a autorului.

Capitolele 5, 6, 7 şi 8 constituie contribuţia ştiinţifică a autorului. Cum am menţionat deja, deşi în titlurile capitolelor se repetă în mod obsesiv folosirea izvoarelor geografice antice, în realitate analiza sa se reduce preponderent la două documente cartografice romane (*Tabula Peutingeriana* şi *Itinerarium Antonini*), cărora li se adaugă, în proporţii mult mai reduse, informaţii extrase din *Itinerarium Burdigalense sive Hierosolymintanum*, *Notitia Dignitatum* şi *Cosmographia* Anonimului din Ravenna. Pentru *Tabula Peutingeriana* autorul foloseşte o ediţie digitală recentă: http://www.cambridge.org/us/talbert/. Prin rezoluţia înaltă a versiunii digitale[23], precum şi prin faptul că este prevăzută cu o bogată şi structurată bază de date[24], documentul datând din sec. XV devine extrem facil de consultat pentru oricine este interesat.

Lectura acestei părţi a lucrării permite cititorului extragerea câtorva informaţii în legătură cu metodologia urmată de către autor. Faptul că aceste informaţii sunt risipite prin diverse subcapitole, sugerează mai degrabă o construcţie conjuncturală decât una clar definită la începutul demersului. Ar fi fost de dorit ca metodologia de analiză să fi fost prezentată unitar, în cadrul unui capitol separat.

În subcapitolul 5.1. (p. 58), autorul expune metodologia pe care o va folosi în analizarea informaţiilor din *Tabula Peutingeriana*, pentru provincia Pannonia: „*Vom prezenta fiecare drum separat, specificând următoarele informaţii: 1. numele aşezărilor romane, aşa cum sunt înregistrate în Tabula şi distanţele în mile romane; 2. distanţa totală de-a lungul fiecărui tronson, adunând valorile individuale dintre localităţi; 3. aşezările reprezentate cu vignete; 4. elemente ale peisajului natural (râuri etc.); 5. Statistici privind frecvenţa valorilor distanţelor; 6. toponimul modern al fiecărei aşezări antice (acolo unde se cunoaşte); 7. argumente privind posibilitatea de a data informaţiile din Tabula Peutingeriana cu referire la Pannonia*”. În lipsa unor referiri explicite pentru metodologia utilizată pentru Dacia şi Moesia, rămâne de presupus că este aceeaşi. Referitor la măsurarea distanţelor, autorul precizează (nota 228, p. 61): „*Am utilizat valoarea de 1,4785 km pentru o milă romană*”. El acordă o atenţie deosebită distanţelor dintre localităţi cuprinse în intervalul 8-12 mile, pe care le exprimă procentual separat pentru fiecare tronson

[18] Lewis 2001, 109.

[19] Fodorean 2011, 52.

[20] Dintre foarte numeroasele recenzii ale cărţii, menţionăm: Casson 1986; Thrower 1986; Buckler 1987; Talbert 1987; MacAdam 1989; Knorr 1991.

[21] Harley, Woodward 1987.

[22] Dilke 1987.

[23] Lehoux 2013, 117-118.

[24] Eliott 2008.

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de drum. Această preocupare o justifică abia la p. 111: „În timpul campaniilor militare era foarte greu să se înainteze mai mult de 12 mile pe zi”. Preocuparea ar fi fost utilă în cazul în care autorul ar fi prezentat configuraţia topografică a terenului pe care drumul îl străbătea. Din păcate, afirmaţia de la punctul 4 (p. 58), prin care se menţionează şi analiza de „[…] *elemente ale peisajului natural (râuri etc.)*[…]” este doar la nivel declarativ, aceasta lipsind atât în text cât şi în ilustraţie (fig. 1-5).

Capitolele 5, 6 şi 7 realizează pentru fiecare provincie o analiză a reţelei de drumuri pe baza informaţiilor extrase din *Tabula Peutingeriana* şi *Itinerarium Antonini*. De fapt, analiza se limitează strict la extragerea şi compararea distanţelor dintre localităţi pentru fiecare tronson de drum. Ceea ce urmează constituie o monotonă şi dificil de urmărit înşiruire de denumiri şi valori, însoţite, în unele cazuri, de succinte precizări şi comentarii. Caracterul greoi şi anost se datorează în principal modului total inadecvat de expunere a informaţiilor, hipertrofiat cu numeroase repetiţii supărătoare. Ne limităm doar la două exemple. Pentru provincia Dacia, cele trei drumuri (Lederata – Tibiscum, Dierna – Tibiscum – Porolissum şi Drubetis – Romula – Apula) sunt enumerate iniţial sub formă de text (6.2.-6.4.) pentru ca apoi să fie reluate sub formă de tabel (Tabelele 1-3, p. 11-12, 12-13, respectiv 13-14). Pentru provincia Pannonia, autorul repetă de cinci ori (!) traseul de limes (*Ripa Pannonica*) din *Tabula Peutingeriana*: de trei ori în format text (p. 59-60 şi 77), o dată în format tabel (p. 60-61) şi încă o dată în format tabel (Tabelul 1, p. 77-79), de data aceasta valorile fiind prezentate comparativ cu cele din *Itinerarium Antonini*. Eliminarea acestor repetiţii inutile şi limitarea la prezentarea informaţiilor doar în format de tabel însoţit de comentarii ar fi facilitat urmărirea opiniilor autorului şi ar fi comprimat considerabil dimensiunile volumului.

În cea mai mare parte a capitolului 8 (subcapitolele 8.1.-8.7.), autorul nu face decât să reia problematica celor trei capitole anterioare. De data aceasta, remarcăm caracterul mai concentrat şi mai omogen al abordării. Nu putem însă să nu constatăm, în acest caz, inutilitatea celor trei capitole anterioare, care măresc inutil volumul lucrării cu o treime. În plus, faţă de revederea descrierilor traseelor de drumuri cu care deja ne-am obişnuit, autorul ne mai prezintă grafice (fig. 6-18), în care pentru fiecare provincie este indicată frecvenţa de apariţie a valorilor distanţelor dintre localităţi. Asupra acestei maniere de analiză se ridică două probleme, prima legată de formă şi a doua de fond. Referitor la prima, autorul prezintă fiecare grafic de câte două ori, o dată cu menţionarea distanţelor şi o dată cu exprimarea procentuală a acestora. Repetiţia este inutilă, cumularea celor două valori (distanţa, însoţită de exprimarea sa procentuală) în cadrul aceluiaşi grafic ar fi fost mai sugestivă. A doua problemă este de fond: care este relevanţa identificării frecvenţelor de apariţie a anumitor valori pentru distanţe, atâta vreme cât acestea sunt decontextualizate prin ignorarea totală a configuraţiei terenului? Lipsa oricărui detaliu de această natură creează falsa imagine a unui spaţiu bizar, gol şi plat, care ne duce cu gândul la *Flatland*-ul lui E. A. Abbott! Probabil că studiul comparativ al distanţelor pe categorii de zone cu configuraţie topografică unitară (câmpie, deal, munte) ar fi putut fi relevant. Respectând aceeaşi reţetă, în subcapitolele 8.8. şi 8.9. inversează tactica abordării, de data aceasta fiind analizate grupat toate cele trei provincii în *Tabula Peutingeriana* şi apoi în *Itinerarium Antonini*.

În *Concluzii* autorul face ceea ce noi numim, fără menajamente, o diversiune. Dorind să distragă atenţia de la rezultatele propriului său demers, acesta analizează critic un studiu al lui R. Laurence[25].

Astfel, din totalul de 11 pagini dedicat concluziilor, doar trei pagini (p. 202-204) sunt consacrate lucrării sale, iar acestea nu sunt altceva decât un amalgam de lucruri deja ştiute şi simple supoziţii. Astfel, faptul că *Tabula Peutingeriana* şi *Itinerarium Antonini* sunt produse cartografice *derivate*, realizate prin preluarea, adaptarea şi compilarea unor surse cartografice *primare*, nu mai constituie de multă vreme o noutate pentru specialişti[26]. În schimb, caracterizarea surselor primare utilizate pentru *Tabula Peutingeriana* ca fiind „[…] *mai bune, mai exacte* [decât cele pentru *Itinerarium Antonini*]”(p. 202), este o afirmaţie fără acoperire[27], atâta vreme cât conţinutul acestora este doar presupus. Neargumentată rămâne şi îndoiala autorului „[…] *că acest document* [*Tabula Peutingeriana*] *a fost unul de propagandă*” (p. 202), precum şi opinia că *Itinerarium Antonini* „[…] *nu a avut neapărat un scop administrativ sau unul cu utilitate directă, ci mai degrabă un scop cultural*” (p. 203). Putea avea o mai mare „utilitate directă” *Tabula Peutingeriana*, în care sunt figurate localităţi a căror existenţă este separată cronologic prin secole? Surprinzătoare este şi datarea în sec. V a *Tabulei Peutingeriana*,

[25] Laurence 2005.

[26] Betten 1921, 296; Dilke 1987, 238.

[27] Într-o excelentă analiză dedicată informaţiilor din *Itinerarium Antonini* referitoare la Britania romană, W. Rodwell consideră că: „[…] *the Antonine Itinerary is a very much more accurate document than hitherto credited.*” (Rodwell 1975, 101).

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nu atât prin data propusă[28], cât prin maniera de argumentare a acesteia: „*Este perioada secolului al V-lea e.n., când, probabil, în timpul lui Teodosius al II-lea, această lucrare a fost realizată cu scopul de a grupa, de a aduna laolaltă, într-o „hartă”, tot ce se* ştia *despre Imperiul Roman în acel moment*” (p. 202). Care ar putea fi explicaţiile pentru această datare? Autorul nu dă niciuna. În schimb, pe această ipoteză mai construieşte o alta: „*Este posibil ca acest document să fi însoţit, să fi fost „harta” uneia dintre cele două lucrări geografice redactate în 435 e.n.: Divisio orbis terrarum şi Demensuratio provinciarum*” (p. 202). Reparcurgând subcapitolul 4.4., în care sunt criticate contribuţiile anterioare din istoriografia românească („[…] *în unele cazuri, tributară unor concepte metodologice eronate.*”, „[…] *în multe cazuri, nu au condus la nici un rezultat din punct de vedere ştiinţific.*”, p. 53), ne aşteptam ca autorul să depăşească nivelul unor supoziţii. Singura contribuţie originală adusă de către autor constă în sesizarea faptului că, pentru provinciile Pannonia, Dacia şi Moesia, distanţele dintre localităţi consemnate în *Tabula Peutingeriana* sunt mai scurte decât cele menţionate în *Itinerarium Antonini*. Acest fapt îl determină să concludă că documentele au folosit surse diferite (p. 204). Fără a încerca o detaliere a cauzelor şi implicaţiilor acestor diferenţe, autorul încheie încrezător în „metoda” sa: „*Rămâne ca în viitor să aplicăm această metodă şi pentru alte provincii, astfel încât să putem identifica noi elemente care să ne permită data mai bine perioadele în care au fost redactate itinerariile regionale pe baza cărora au fost create lucrările cartografice cele mai cunoscute ale epocii romane*” (p. 204).

Lucrarea se încheie cu o listă bibliografică însumând 340 de titluri şi un rezumat în limba engleză. Acesta este realizat într-o formă amplă (27 de pagini), cu păstrarea structurii pe capitole şi cu trimiteri la toată ilustraţia din volum.

Observaţia principală adusă prezentei lucrări se referă la inadvertenţa dintre titlul şi conţinut. Un titlu potrivit ar fost: „Pannonia, Dacia şi Moesia în *Tabula Peutingeriana* şi *Itinerarium Antonini*. O analiză comparativă a distanţelor consemnate în cele două izvoare cartografice romane”. Ideea de cercetare preluată de către autor este interesantă, dar abordarea lasă de dorit prin ignorarea rolului peisajului natural (esenţial atunci când obiectul analizei îl constituie reţeaua de drumuri) şi prin efectuarea unor analize statistice rudimentare. De altfel, ideea nu este nouă. Analize anterioare asemănătoare au făcut obiectul unor studii separate[29] sau au fost integrate în volume dedicate unei problematici mai largi[30], fiind evident că, doar simpla comparare a distanţelor dintre localităţi, nu poate face obiectul unei întregi cărţi.

Aşa cum constata şi autorul (p. 45-46), remarcăm, mai ales în ultimul deceniu, un interes neobişnuit de mare din partea specialiştilor pentru *Tabula Peutingeriana* şi *Itinerarium Antonini*. Acest fapt se datorează, în primul rând, volumului mare de date spaţiale pe care acestea le conţin iar, în al doilea rând, falsei impresii că aceste documente sunt total accesibile specialiştilor în perioada romană. În realitate, lucrurile sunt mai complicate, implicând un demers interdisciplinar: „*The present-day surveyor who is curious about the origins of his profession may not be deeply informed on ancient history or engineering, while the classical historian may not have a detailed command of the principles of surveying.*”[31]. Adesea se uită sau, în orice caz, este luat foarte puţin în consideraţie, faptul că *Tabula Peutingeriana* şi *Itinerarium Antonini* sunt produse cartografice derivate. Prin urmare, acestea nu sunt rezultatul unor măsurători topografice directe, ci al preluării, adaptării şi compilării unor măsurători topografice iniţiale, ale căror scopuri nu putem decât să le bănuim: administrative, militare, inginereşti, agricole etc. Precizia acestor măsurători varia în funcţie de scopul urmărit, iar distanţele diferite dintre localităţi se pot datora şi acestui fapt[32].

[28] Referitor la datarea *Tabulei Peutingeriana*, considerăm că cea propusă de către O. A. W. Dilke rămâne în continuare cea mai bine argumentată: „*The date of the archetype is likely to have been between A.D. 335 and 366. Such dating is suggested by the three personifications placed on Rome, Constantinople (labeled Constantinopolis, not Byzantium), and Antioch; and it fits in well enough with biblical references on the map. Sometime after the foundation of Constantinople in A.D. 330 as a new Rome on the site of Byzantium, Antioch was recognized as the important bastion against the Parthians. But the suggestion that this fourth-century archetype was based on a much earlier map would account for the inclusion of Herculaneum, Oplontis, and Pompeii, which had been destroyed in the eruption of Vesuvius in A.D. 79 and not rebuilt, except for parts of Pompeii. It is also perhaps easier, on this supposition, to see why certain roads are omitted, such as the major routes through the Parthian empire mentioned in the Mansiones Parthicae (Parthian stations) of Isidorus of Charax. This work is believed to have been compiled in the late first century A.D.*” (Dilke 1987, 238).

[29] Rodwell 1975.

[30] Laurence 2005.

[31] Lewis 2001, 15.

[32] Mai atragem atenţia autorului asupra unei erori pe care o face de mai multe ori în lucrare, exemplificând cu o singură situaţie (p. 64-65). Încercând să „corecteze” distanţele dintre localităţi care „[…] *par incorecte*”, acesta le „ajustează” pe baza distanţelor existente în prezent între respectivele localităţi. Chiar dacă am porni de la premisa că traseul nu a suferit modificări în timp, se ridică o întrebare: *de unde* (din ce punct) măsurau romanii distanţele dintre localităţi?

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La final, în încercarea de a caracteriza într-o singură frază lucrarea lui Florin Fodorean, îmi revin în minte cuvintele lui John Buckler, scrise în 1987, într-o dublă recenzie făcută lui O. A. W. Dilke (*Greek and Roman Maps*) şi lui R. J. A. Talbert (*Atlas of Classical History*): „[…] *the Greco-Roman cartographers still have something to teach modern map-makers*”[33].

Ce garanţii avem că aceste punct-reper erau de fiecare dată *aceleaşi*? În prezent, distanţa dintre două localităţi se măsoară folosind ca repere centrele convenţionale ale acestora. Procedau romanii la fel sau nu? W. Rodwell consideră că: „*Since it is impossible to believe that the Roman mile was of differing length in different provinces, it must be concluded that measurements between towns, forts and even small settlements, were not taken from centre to centre, but from some point beyond the main area of occupation.*” (Rodwell 1975, 76). Astfel, diferenţele remarcate de către autor se pot datora alegerii diferite a punctelor între care a fost măsurată distanţa, nefiind neapărat erori de măsurare. Ca atare, „corecturile” efectuate meticulos de către autor, nu au o relevanţă reală.

[33] Buckler 1987, 278.

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